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To Dr. BATTY.

SIR,

I HAVE felt a little vexation of late from hearing that Mr. Abernethy's gorget for Lithotomy was inquired for in the instrument shops; and still more from finding that an ill contrived instrument, under that appellation, was proposed to be sent into the country.

I wish to disclaim all merit as the inventor of such an instrument, and to state to Surgeons in general, through the medium of your useful and widely circulated publication, the circumstances which probably gave rise to the inquiry for an instrument of my invention. From the commencement of my Lectures on the Operations of Surgery, I have been accustomed to say to the students, that surgeons seemed to me to be too fond of inventing and using new instruments; that the way to appreciate the perfection of an instrument was, to enquire what was wished to be accomplished by it, and if this was effected, it was absurd to change it for another.

If the urethra, prostate gland, and front of the bladder are designed to be divided on one side only, the best direction of the wound appears to me to be between the horizontal and perpendicular directions, in the manner represented in the plate; for a wound thus situated is more likely to heal speedily, from the urine flowing less frequently through it; the prostate is also less injured, but little of its substance being cut through, and the consequent inflammation being less likely to affect its own excretory ducts, or those of the seminal organs. Hawkins's gorget divides the parts in this direction, but not perfectly; for as the cutting edge is curved, partly extending horizontally, and gradually approaching towards the perpendicular, it must make an haggled wound, as will be more easily conceived than described. To remedy this defect, I

recommended that the cutting edge of the gorget should in every part have the same direction, and be turned up at an angle of 45 degrees, as represented in the plate. The back part of the edge will of course pass through a wound made by the front, and from its obliquity it will cut with great facility. The edge of Hawkins's gorget also makes a wound of too small extent. This, surgeons in general perceived, and in avoiding one error, they, as is common, ran into the opposite extreme, and caused their gorgets to be made with lancet shaped processes, which extended so far from the beak, that it must be difficult to get them beyond the bone into the pelvis, and, under these circumstances, it was almost impossible that the pudendal artery should escape division. Three quarters of an inch is the distance to which I have directed the cutting edge to extend from the beak in a gorget for operating on the adult subject.

This instrument will make such a division of the membranous part of the urethra, prostate and anterior part of the bladder, as is represented in the plate; it will not touch the bone, nor divide the pudendal artery. Should the stone be of extraordinary magnitude, I would recommend a surgeon to introduce his finger into the bladder, and divide the front of it with a probe-pointed knife, a little further than the gorget has done, and in the same direction, and, I think, the wound will then easily stretch to an extent equal to the transverse space existing between the rami of the iscium. Indeed, stones sometimes occur of such magnitude that it appears wrong to attempt their extraction entire; as it cannot be done without much injury not only to the bladder, but also to the contiguous parts.

In Hawkins's gorget, which was designed as an improvement upon the blunt one, the form of the latter is still preserved; the sides of the instrument extending in both directions to equal distances from the beak. The blunt side, unless the instrument be much turned awry, must consequently injure the undivided part of the urethra. I therefore recommended that it should be filed away, as is represented in the plate. Again, as it appears of consequence that the cutting edge of the gorget should come in exact contact with the groove of the staff, in whatever direction the one instrument be held with respect to the other, I have always desired that the beak should be ground into an exact segment of a circle, the radius of which should be precisely the same with the depth of the groove

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of the staff. This circumstance is also sketched out on the plate.

Such, Sir, are the alterations, which I recommended to be made in Hawkins's gorget, and such is the instrument which, perhaps from an improper dislike to innovations, I shall continue myself to use till I find some fault in it. I have extracted as large stones through the wound made by it, as I should conceive myself warranted extracting entire, and I have never divided with it the udendal artery.* As this instrument exactly accomplishes what it is designed to execute, I consider it as perfect of its kind; but it is not my intention to recommend it in preference to other gorgets.

A gentleman,† whose professional knowledge and opportunities qualify him to decide on such subjects, has of late recommended that both sides of the urethra and prostate should be divided, in order to facilitate the extraction of the stone.

I have sent you these remarks merely because I thought they might be of some utility, by inducing surgeons, who have not those extensive opportunities of surgical and anatomical observations, which occur in a metropolis, to reflect on the objects designed to be effected by gorgets for lithotomy in general, and the principles on which they should be constructed; and by these means to guard against the ill consequences which might ensue from the use of improper gorgets obtruded on them by ignorant makers of such instruments.

I am, &c. &c.

April 16, 1803. J. ABERNETHY.

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* It may perhaps be useful to mention, that when I once saw the pudendal artery divided in the adult, the hæmorrhage was so profuse as to call for some sudden mode for suppressing it; I therefore, with my finger, compressed the trunk of that vessel, as it passes along the inner surface of the tuberosity and ramus of the iscium. This pressure served, like the tourniquet, to suppress the bleeding; but on the least remission, the blood gushed from beneath the os pubis so vehemently, and from such a depth, as to make it unlikely that the divided artery could be secured in that situation; I therefore tied the trunk of the vessel where I had compressed, and where it was easily accomplished, and thus effectually prevented any further loss of blood.

† Mr. Astley Cooper.

To the Editors of the *Medical and Physical Journal*.

GENTLEMEN,

THE letter from Mr. S. Cooper in your last Journal, demands my thanks for his ready explanation.

It was never my design to assume any merit for priority as the inventor of a cure for Herniæ. I had consulted all the orthodox authorities on the subject of such operations before I ventured to form a plan of my own, founded on the modern improvements in surgery. These thoughts were eventually laid before my Colleagues at the Westminster Hospital, on an occasion which seemed to warrant the enterprise.

A bricklayer's labourer under twenty years of age, applied to me for the means of procuring a truss; he had a Scrotal Hernia, descending through a widely dilated abdominal ring, and the nature of his work had rendered it difficult for him to keep a sufficient pad firmly over the orifice. The moral considerations of this individual case, induced me to propose an operation to him for a radical cure, and he consented to abide the event. My colleagues were of opinion, "That the danger to life was inconsiderable, but that the chance of the intended success was not great." I willingly risked my professional character on the latter point, because I had reason to be assured in my own judgment, founded on the peculiar precautions in my intended operation, that the success would be nearly certain. This man, however, left the hospital clandestinely, after having been cured of the venereal disease.

As Mr. Cooper's first proposal contained many of the very quotations in favour of an operation for the radical cure of bubonocele, which I had publicly urged, and as only the initials of his name appeared to that proposal, it looked as if some unknown person had usurped that pretension without any of the merit which I now acknowledge is due to Mr. Cooper.

The particulars of my designs for conducting this operation are, at present, unknown to any other person; and it may be sufficient for the present purpose to say, that I have deliberately weighed the moral and professional considerations which attach to this subject, and having compared these with my experience in similar operations, I have not hesitated to conclude, that opportunities are often arising in the practice of surgery, wherein this operation would be not only justifiable, but as eligible and necessary as the operation

operation for the radical cure of the Hydrocele. Under these impressions, I am ready to perform this operation whenever all the circumstances conspire to make it prudent, and to promise ultimate benefit to the patient. In your note to Correspondents, it appears that some person (perhaps interested to prevent the radical cure of ruptures) has endeavoured to condemn the attempt. Such person should wait until the arguments in its favor, and the plan to be adopted, are fully before the public; and which it is my intention to undertake as soon as the operation has been fairly tried. I am, &c.

A. CARLISLE.

Soho Square, April 14, 1803.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

AMONG your numerous Correspondents on the subject of the Vaccine Inoculation, I do not find that any of them have hit upon a method which I have for some time made use of, for preserving the matter in an active state, and conveying it to any distance. I think my method claims a superiority over any other that I have heard of, or seen described, as by it the matter is preserved in a fluid state, and absolutely excluded from contact with the air; by which means it is less likely to undergo a decomposition, and its activity not so liable to be destroyed as when it is suffered to dry, and to be exposed to the access of air.

My method is as follows. I make use of a small glass bulb, with a shank or tube to it, of the size and form of the under impression,

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Viz. I select a subject with a full pustule, in which I make a small puncture; in a few seconds a small drop of matter is to be seen on this puncture; I then dip my glass bulb into a cup of boiling water, holding it therein long enough for the expanded air to escape; I then take it out and instantly apply the orifice of the tube to the drop of matter, which will be drawn into the tube as the bulb cools; I then immediately seal the tube hermetically by holding the end of it in the flame of a candle.

To

To make use of the matter thus preserved, the extreme end of the tube must be broken, and the point of a lancet applied to it; at the same time, by gently approaching the bulb to the flame of a candle, the matter will by the expansion of the air be driven out and received on the point of the lancet. Or a puncture may be made on the arm, into which the end of the tube may be inserted, and then the candle gently applied to the bulb.

Vaccine matter preserved by this method has been inserted, at various periods, from one week to upwards of two months, with complete success.

I am, &c.

Feversham,
April 10, 1803.

JOHN THOMAS GIRAUD.

A. A small portion of matter within the tube.
B. The end of the tube hermetically sealed.

P. S. Since writing the above I have examined the arm of a child inoculated on Thursday, the 7th instant, from one of my tubes armed on November 12, 1802, and have no doubt of its having taken.

EXPERIMENTS, *relative to the* CHEMICAL ANALYSIS *of* OPIUM; *by* MR. BUCHHOLZ, *Apothecary, at Erfurt.*

THE accurate chemical knowledge of so curious a substance as opium is a matter of great importance, particularly as it may throw some light on its mode of operating in the animal body, or inform us at least, which of its constituent particles is the most active, and thus direct our attention towards a method of obtaining the most efficacious preparation of so powerful and useful a medicine. The chemical analysis of this substance, however, though it has been undertaken by many chemists, deserves, on the whole, to be deemed imperfect; a circumstance for which we may easily account, on considering how much the chemical treatment of vegetable substances was formerly limited, being by no means calculated to explore the composition and number of their constituents, and to afford atisfactory results. Induced by these considerations, and persuaded of the deficiency of all the former analyses of opium, I determined to attempt a new one, which, however distant from being entirely satisfactory, will, I trust, prove the first step towards a more exact knowledge of the chemical

mical mixture of so remarkable a substance, than we have hitherto possessed.

Previous analysis of opium. I extracted two ounces of the very best opium, according to the prescription of the Edinburgh Dispensary, by means of equal parts of proof spirit and cinnamom water. The residuum remaining after this operation, amounted to three drachms and a half, which I treated repeatedly for four times, one after another, with alcohol, as long as this received any colour from it; for which purpose I used 12 ounces of alcohol, and I boiled the residuum with a sufficient quantity of distilled water, which however was not coloured by it. The residuum, after having been thus treated with aclohol and water and well dried, still weighed two drachms 10 grains. On throwing a small portion of this substance on red hot iron it appeared like a black oil, and being cooled, it could be drawn into threads, emitting the smell of horn. Another portion, treated with concentrated nitric acid, gave to it a dark red colour, whereby red fumes, attended with a strong frothing, were disengaged, as soon as it was gently heated. Digested for some hours with rectified vitriolic either, the tincture received a dark brown colour. This solution being mixed with water and shaken, a greasy tough mass was separated, which could be drawn out in long threads, and showed several characteristics of Koutshoock matter. By this preliminary discovery I was encouraged to pursue the path which I had entered, and thus to reach the point which I purposed.

Accurate analysis of opium. Exp. I. Five hundred grains of very pure and good opium were cut into small pieces, and being thrown into a retort, were infused with 32 ounces of distilled water. After having been digested for several hours in a heat approaching to the boiling degree, the fire was gradually augmented, whereby 6 ounces of liquor were distilled over, which had a light colour, and a strong peculiar smell of opium, or of the fresh heads of poppy, and a peculiar taste, somewhat similar to that of opium, but less acrid and warm. I could not find the least trace of oil, and having put to the retort a new receiver, I distilled over 6 ounces more of a liquor which had neither smell nor taste.

Exp. II. In order to ascertain whether the smell and taste of the water distilled from opium originated in oily particles, I tried to concentrate them by a gentle distillation; for which purpose I drew two ounces of liquor by a very gentle heat, during which process the peculiar smell of opium was perceived through the laboratory, though the vessels were very exactly luted. This liquor tasted and smelled

smelled like opium, but no trace of any oily particles could be found out, and it had no effect on the tincture of tournesol. As it has been supposed by some authors, that the principal virtue of opium might be impaired in some measure by boiling and by the evaporation of the volatile particles, I thought to have obtained them in the above-mentioned manner, and accordingly expected a great operation of the distilled liquor on the animal body, on which account I made the following experiment.

Exp. III. Half an ounce of that liquor was administered to a weak sickly dog of two years, but though I watched him closely for more than one hour, I could not perceive any sensible effect from this dose, and having given him the rest of the liquor, about one ounce and a half, no bad effect was produced.

Exp. IV. I separated the extract obtained in the first experiment by water through a filtrum of fine unglued paper, and having well washed the residuum, I let it boil for three hours with 16 ounces of distilled water, which however became but slightly coloured, and had a weak taste of opium. After I had filtrated it, and washed sufficiently with distilled water, I poured it to the liquor obtained in the first experiment.

Exp. V. All these liquors were evaporated in a good earthen vessel by a very gentle heat to about one ounce and a half, which I suffered to stand, well covered, in a moderately warm place for eight days, and the liquor being poured off I found 2 grains of a reddish grey matter, which being somewhat resinous, contained a small portion of lime and of a vegetable acid, for it crackled under the teeth, and being calcined, the residuum was entirely dissolved in nitric acid with a considerable effervescence. The liquor above mentioned was now evaporated by gentle heat to the consistency of opium, and the extract thus obtained weighed 330 grains, or 5 drachms and a half. It was easily pulverised, of a glossy brown surface, and very brittle; its taste was moderately acrid.

Exp. VI. The residuum extracted from the watery solution being well dried, weighed exactly 135 grains, was very brittle, of no considerable taste.

Exp. VII. These 135 grains being infused with 6 ounces of alcohol in a proper matrass, which being shut with a bladder was exposed to digestion. This being continued for two days and the vessel frequently shaken, the mixture obtained a dark brown colour. I filtrated the liquor when still

still hot, pouring to it alcohol as long as it run coloured throug the filtrum. The filtrated tincture on being cooled, deposited some flakes which I found to consist of a matter like gluten.

Exp. VIII. I poured again 6 ounces of alcohol on the residuum, which I had carefully collected, and having treated the mixture for about two hours in the boiling heat, I let it stand for twelve hours in a moderate warmth. The tincture was likewise strongly saturated, and let fall some flakes, as I have remarked in the foregoing experiment.

Exp. IX. The residuum thus twice extracted with alcohol was a third time infused with 4 ounces of alcohol, and put in digestion for several hours; the tincture became again pretty well saturated.

Exp. X. The residuum was again boiled with 4 ounces of alcohol, and though it was still considerably coloured, it became not in the least turbid by the admixture of water; whence I concluded the colour might rather be attributed to a colouring matter than to any resinous part; which I was the more inclined to believe, as it seemed extraordinary that 20 ounces of alcohol should not have been able to dissolve 2 drachms and 15 grains of a resinous matter. The residuum, along with the precipitated flakes, weighed 90 grains.

Exp. XI. I infused these 90 grains with 1 ounce of vitriolic ether, exposed the mixture to a gentle heat, often shaking it. After being thus digested for about twelve hours, the mixture received a dark brown colour. I filtrated the solution, pouring on the residuum vitriolic ether till it run through uncoloured.

Exp. XII. The residuum was again mixed with one ounce of vitriolic ether, and placed in a moderate warmth, and some time after heated; the tincture however was scarcely coloured. The liquor being separated by the filtrum, was mixed with that obtained in the former experiment. The residuum, which was grey, red, and powdery, weighed dry 66 grains.

Exp. XIII. A small portion of the residuum I threw into a small red hot crucible, by which a disagreable smell, resembling that of burned horn, was disengaged, some coal remaining, which could only with difficulty be calcined.

Exp. XIV. In order to separate the substance, dissolved in the vitriolic ether, I mixed this in a large vessel with

with as much distilled water as was sufficient for the solution of the ether, by which means that substance coagulated and collected itself, swimming, in form of a blackish juice on the surface of the liquor. Its quantity amounted to about 24 grains, and it possessed all the characteristics of the Koutshoock matter; thrown on living coals it emitted a disagreeable smell, resembling that of lard. The insoluble residuum, remaining after the treatment with water, alcohol, and vitriolic ether, proved to be nothing but albuminous matter, mixed with fibrous and ligneous particles, which only resists the solution in alcohol, water, and vitriolic ether, and emits the smell of horn.

Exp. XV. One hundred grains of the dry extract, obtained by the evaporation of the watery digestion, being pulverised, were infused with 1 ounce of alcohol, and heated for half an hour, by which the liquor became dark brown. The experiment being repeated with the same quantity of alcohol, produced a strongly coloured tincture; but on its third repetition, I could not obtain a similar tincture, the alcohol remaining uncoloured, and showing no taste of opium.

Exp. XVI. All spirituous solutions were evaporated to dryness by a gentle heat; the mass thus obtained had the appearance of the extract of saffron, but being dried, it became glossy, yellow brown, and brittle, like resin; it was entirely soluble in water, weighed about 54 grains, and was saponaceous; whence it appears, that the 330 gr. of the watery extract contained 178 gr. saponaceous matter and 152 gr. gum.

Exp. XVII. The mass of the watery extract, remaining after its extraction with alcohol, was again dissolved in distilled water and mixed with three or four times as much alcohol, by which means the gum was separated in form of brownish flakes, and the remaining liquor was but slightly tinged, which proves that the gum was quite pure from the saponaceous matter.

Exp. XVIII. A solution of the watery extract of opium was mixed with vitriol of iron, but the brown solution was hardly tinged by it.

Exp. XIX. A similar solution mixed with a solution of muriat of barytes became turbid, and a precipitation ensued. Mixed with sulphat of silver it got slightly turbid; but on adding to it alcohol it remained clear.

Exp. XX. A solution of opium in alcohol became darker when mixed with a solution of vitriol of iron, but not black.

Exp.

Exp. XXI. The remainder of the watery extract from experiment vi. being about 230 grains, were dissolved in distilled water, filtrated and evaporated to the consistency of a syrup, which being left to dry in a very moderate warmth for about three weeks yielded a dry mass, on which not any crystalline particles could be perceived.

Exp. XXII. I mixed together the extracts made with alcohol in the experiments viii. ix. x. and xi. put them into a small retort and distilled over the alcohol to its fourth part, during which operation a small portion of a powder had separated. I poured the remaining solution into an evaporating dish and suffered it to evaporate to dryness; but though I alternately applied a gentle and a strong heat for about twenty-four hours, the mass would not become dry, but remained tough, weighing 35 grains.

Exp. XXIII. I endeavoured to dissolve these 35 grains in half an ounce of the strongest alcohol, for which purpose I employed a gentle heat, but on shaking the mixture without having exposed it to any heat, the alcohol was tinged dark red brown, and on giving it the warmth of digestion the greatest part was dissolved; the third part however, though repeatedly treated in a boiling heat with 2 ounces of alcohol, could not entirely be dissolved, but a reddish powder remained, which thrown on living coals spread no considerable smell.

[To be continued.]

A Case *of* premature Delivery, *with Observations; communicated by* Mr. Barlow, *of Blackburn, Lancashire.*

ELLEN PICKLES, who resides in the village of Rishton, about three miles from Blackburn, is a woman of low stature, and when young was afflicted with rickets; she has had three children, two of the first I was constrained to extract by means of the crotchet,* owing to a distortion of the pelvis; and the life of the last, which is the subject of the following narrative, was fortunately preserved by exciting premature labour. For the purpose of effecting this mechanical event, I visited her on the 15th of January last, and requested she would dispatch a messenger for me whenever the pains of labour commenced. On the

* About the time I was employed in ascertaining the advantages derivable from exciting premature labour, together with the moral rectitude of the practice.

evening of the 16th I was sent for; and on examination per vaginam, perceived the os uteri was dilated to the circumference of a crown; the pains were strong, and had been increasing in force and frequency the greatest part of the day; the head of the fetus was movable by the pressure of the finger against the presenting cranium, consequently was not then become engaged in the pelvis. In about two hours I repeated my examination, and found the os uteri had completed its full dilatation; the head of the child was advanced some distance in the superior aperture of the pelvis, when it remained stationary for the space of two more hours, though the uterine action was very considerable. I now began to fear the child would suffer, unless some mechanical assistance could be afforded. Thus situated, I was induced to apply the lever, which in a few minutes effected the exit of the child with tolerable ease and perfect safety. The period fixed upon for exciting premature labour in this woman was as near that of the eighth month of utero gestation* as could possibly be ascertained. The child, when born, appeared lively, yet presented evident marks of immaturity, and is at this time alive and healthy; the mother's recovery was interrupted in a slight degree by a swelling of one of the lower extremities.

I have taken repeated and very accurate admeasurements of this female's pelvis, by means of the introduction of the hand, and invariably found the superior aperture from pubis to sacrum, to measure about two inches and a half, and on both sides the contraction is also perceptible, and the inferior aperture is also rendered somewhat less than natural by the projection of the os coccyx.

In order to establish the circumscribed limits wherein premature delivery is justifiable, I have in a preceding Number of the Medical and Physical Journal, dispassionately examined the comparative advantages and disadvantages of this species of birth; it may therefore appear unnecessary to expatiate further on the subject; nevertheless, so far as a single case can illustrate the point in discussion, the one above related, together with the following observations, will probably by most Accoucheurs be thought worthy a perusal. It is in this intermediate degree of distortion

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† I am well aware of the difficulty of ascertaining the exact time of impregnation in the human species; but the date of the event appears more clearly established in this instance than some others, as the woman's husband had returned from the military service about the time fixed upon for the commencement of her gestation.

tion of the pelvis, requiring on the one hand the successful use of the forceps or lever, and on the other of being compelled to the dreadful alternative of terminating the delivery by Embryulcia, that I am anxious to fix its true limits; for if we exceed the bounds prescribed by either of these modes of instrumental delivery, we shall establish an abuse of the operation in question, and render our efforts of no avail to society.

The extreme shades of distortion of the pelvis are circumstances which most Accoucheurs acknowledge to occasionally exist, consequently it becomes essentially necessary to estimate the relative dimensions between the bulk of the fetal head, and the apertures of the pelvis through which it has to pass, before we have recourse to this operation. The diameter of the female pelvis (except in cases of Malacosteon) is little or none * augmented during the progress of labour, therefore our hopes must rest on the degree of compressibility which the fetal cranium is capable of sustaining; and this is so variable, that scarcely two fetal heads will be found to yield with the same facility to an equal degree of expulsive power, when passing through the pelvic canal; yet the fetal cranium will sometimes become moulded, in a wonderful manner to the apertures of the pelvis; and in some instances of considerable distortion, I have observed after birth an evident depression of the cranium without manifest injury, which had been caused by the projecting angle of distortion, opposed against the head of the fetus during labour; but the depression alone, except in very long and tedious labours, will seldom become injurious; for Nature has so wisely endowed the fetal cranium with flexibility, that it will sustain considerable pressure without any palpable marks of mischief apparent on either the brain or cranium; perhaps this important organ is comparatively less affected by injury in early infancy, and before it has acquired the habit of associating the different impressions of sensation, than at a more advanced period of existence; nevertheless, if the scale of

* The opinion of the spontaneous separation of the bones of the pelvis during labour is now generally exploded; and for the satisfaction of those who wish to see the influence which this doctrine occasioned, together with the evil tendency it had on the obstetric art, may consult the works of Hippocrates, Galen, Vesalius, Harvey, Ambrose Parey, Mauriceau, Denman, and Baudelocque. Severinus Pincus, a French surgeon, who lived about the middle of the fifteenth century, collected the opinions of all the authors anterior to his time, and formed a small Treatise on the subject. This, in all probability, gave rise to the Sigauitian operation.

of difference between the diameter of the pelvis and the fetus be very considerable, insomuch that the existing disproportion amounts to three-quarters of an inch, it is highly probable that not only a depression of the cranium of the fetus may take place, but a detachment of the pericranium and dura-mater; hence internal extravasation, and consequent derangement of structure will ensue, and the functions of the brain be destroyed. I presume, therefore, it will be generally admitted, that the head of a mature fetus cannot possibly pass uninjured, through a pelvis where the antero-posterior diameter of the superior aperture, taken from pubis to sacrum, is limited to only two inches and a half; and if the dimensions be even two inches and three-quarters, considerable difficulty and danger will consequently still exist, though in a less degree; for in this state of deformity, it not unfrequently happens, that manual assistance becomes necessary; and, though dexterously accomplished, by either the forceps or lever, the fetus sometimes falls a victim thereto. It may, nevertheless, be contended by some practitioners, that in cases of distortion, as above specified, that some advantages may be obtained by reversing the fetus, and attempting delivery by the feet; but the insufficiency of effecting the exit of the fetus by this manœuvre, will very seldom authorise such attempts, as many shocking instances are recorded by authors, where either the pelvis was distorted, or some imprudent steps of the Accoucheur has eventually proved to be the cause of the loss of the fetus by this mode of delivery; such, for example, are those related by Smellie, Giffard, Dease, Nihell, Portal, La Motte, Perfect, and Ambrose Parey, where the head of the fetus was separated from the body and left in the uterus or cavity of the pelvis. Fielding Oulde gives an example well worth attention, of a woman whose pelvis was much distorted, in which case he turned the fetus with a view of facilitating delivery; unfortunately, however, he adds, "After many vain endeavours, I was at last obliged to separate the body from it (the head) by turning it round, whereby the neck was dislocated." Though the extent of distortion in this case is not precisely mentioned by the author, yet it must have been considerable; and had he obtained a competent knowledge of the diameter of the pelvis, together with the relation it bore to the fetal head, prior to turning the child, in all probability he would have saved himself some unnecessary fatigue, and, doubtless, the woman much pain, by perforating the cranium, and delivering by the crotchet.

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As the death of the fetus, even in a well-formed pelvis, when extracted by the feet, is sometimes unavoidably the case, how much more have we to dread this event, when the head is too voluminous to traverse through the contracted apertures, and where the extent of distortion reduces the superior strait to the space of two inches and three quarters? Is it not more probable that delivery may be accomplished with greater facility and safety without turning, by the assistance of either the forceps or lever? And even these instruments, like every other obstetric invention, become subordinate, and can only be used with prudence under certain restrictions of deformity or condition; and when the pelvis measures only two inches and a half in the superior strait, it would be extremely hazardous to attempt to turn the fetus, and in most cases utterly impossible to accomplish delivery without lessening the head; and when the small diameter of the superior strait measures two inches and three-quarters, the head of the fetus may, under certain favourable conditions of structure, occasionally become moulded to the canal, and pass uninjured; yet I am disposed to conclude, that were a just parallel to be drawn of the fatality attendant on the fetus, in this last stated degree of distortion of the pelvis, I fear the balance would preponderate in the destructive scale; and granting this inference to be just, does it not appear from these data, that premature delivery offers a more favourable resource, under these circumstances, for the preservation of the fetus, than any other expedient yet had recourse to?

Manual assistance sometimes becomes necessary, even where the capacity of the pelvis bears a favourable relation to the head of the fetus. This contingent event may be caused by the head becoming propelled into an improper axis of the pelvis; and notwithstanding the expulsive efforts of the uterus, though continued for several days, would alone be insufficient to effectuate delivery; and in some rare instances, where the head has become thus locked in the passage, the crotchet will be requisite, when the succeeding labour may terminate without instrumental aid, with perfect safety to both mother and fetus. Hence it would appear manifestly absurd for the Accoucheur to conclude, that in every case where the crotchet has been used, that a similar obstacle may obtrude, and render the same resource necessary in every subsequent instance.—This circumstance undoubtedly demands the strictest attention from the Accoucheur, lest the life of the fetus, through

through a mistaken zeal of acquiescence with prior practice be attended with palpable danger.

A case not very dissimilar to some above alluded to, occurred in this neighbourhood (Ramsgreave) a few years ago; the woman had been repeatedly delivered by the crotchet, by different practitioners, and her pelvis, it is said, was so much distorted on the left side* from exostoses, as not to admit any material part of the child's head to pass through it. In one instance the practitioner was induced to turn the child; but this expedient was attended with the usual fatality of her former labours, and the child became mutilated in the attempt, by the powerful exertion of the Accoucheur, and the head severed from the body; fortunately, however, the head was afterwards extracted, and the woman recovered. At the full period of her last state of utero gestation, it was my lot to attend this unfortunate woman. On my arrival I found the os uteri completely dilated, and in less than fifteen minutes a mature living child was expelled, without manual assistance. This fortunate event surprised me no little, and this more particularly on the introduction of the hand for the purpose of ascertaining the cause of this unexpected phenomena; for on the most accurate examination, I could not trace any lines of distortion to exist in any of the apertures of this female's pelvis.

This case, therefore, furnishes a striking example of the absolute necessity of ascertaining the dimensions of the different apertures of the pelvis, in every instance, prior to delivery. I trust, from what I have advanced in the preceding pages on this important subject, that the propriety of exciting premature delivery will appear in a great measure established, and induce practitioners to adopt this species of operation under the restriction of deformity of the pelvis, which I have pointed out as most conducive for the preservation of both mother and fetus.

April 8, 1803.

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* For a detailed account of one of this woman's labours, see Dr. Hull's Observations on the Cæsarean Operation. Part II. p. 426—7.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

IT was expected that the late Controversy on *Apoplexy* would have been followed by a summary comment from the pen of the Editors.* Your opinions would have had much authority; and the extended circulation of the Journal would have given them a wide publicity. The occurrence of *Apoplexy* is, perhaps, becoming more and more frequent; and from the sudden manner in which it makes its approaches, it will generally fall to the lot of the *nearest* practitioner (whatever may be his youth and inexperience) to decide on the *first* and the *most effectual means* of combating this awful disease. Much, therefore, depends on his being properly informed of the *nature* and *cure* of *Apoplexy;* for if the important stakes of life and death are to be lost or won by his *first* exertions, surely those ought to be directed by enlightened views of the subject. Now, I am persuaded, that the reader of your Journal, (and I believe that a very large proportion of professional men of the empire read the work) will be more unsettled in his faith, relative to the true nature of *Apoplexy,* and more hesitating in the application of curative agency, than he was previous to his perusal of the controversial papers which have appeared on the disease. It may be observed, that nothing so successfully eliminates the truth as this mode of agitating speculative questions; but surely, those discussions, which are so intimately blended with human happiness and human life, should be conducted with much impartiality, coolness, and candor. It is not possible, I think, to apologize for a writer, who, in a matter of so much seriousness, seeks merely to obtain a triumph, by the unjustifiable means of involving the subject in deeper mystery. If the truth is ever to be thus pitifully sacrificed, it ought to be, when the question does not so materially direct the destinies of the human species.

In the papers on *Apoplexy,* in your Journal, there is a strange diversity of opinion. Upon subjects purely specu-

* The Editors did intend to have given an opinion on the subject, but they soon found that any opinion would be unsatisfactory to many of their readers, and that some might think them prejudiced or partial. They are glad to see the subject in the hands of Dr. Mossman, but doubt whether all his readers will agree in opinion with him.

lative, when a recurrence to facts is impossible, this want of agreement may be expected; but, it is very remarkable indeed, that there should be so little unanimity about the *cause* and the *cure* of *Apoplexy*; for, the morbid phænomena of this disease, both before and after death, are so uniform, as to draw from every author, a description very exactly similar. It frequently happens that our observations, and even our experiments, are made to bend to some preconceived opinions; but the living and the dead appearances of *Apoplexy*, are, it seems, too striking, to admit of this deception; we are agreed about both. The *cause* and the *cure*, are the points to be settled; and in the prosecution of this important investigation, the mind of the enquirer should have no particular doctrine to serve, nor any particular point to carry. He should examine, arrange, and compare; and having done so, he should state facts as they are, and not as he, perhaps, may wish them to be. He should not contend for opinions, but for useful knowledge. He should not load the discussion by much extraneous matter, or with much loose theory; but should enlighten the subject by a faithful and correct history of what he has seen, and what he believes to be true. A parade of literature should never be substituted for a close analysis; nor should a concerted list of ancient or foreign authorities ever supercede the satisfactory mode of knowing the truth by evidence and induction. I do certainly respect genius and talents in whatever clime they grow, and the names of Morgagni and Spallanzani will ever command my veneration; but it is certainly true, that foreign authorities have been adduced in a late Controversy, to which much celebrity never before attached. It is also true, that, whatever may have been the reputation of some ancient authors, the splendid discoveries which have been made in *Physiology*, since their time, must necessarily lessen the value of their opinions. There is a stateliness, I think, in quoting such authorities as Riverius or Van Helmont; and there is a want of fairness in deducing from the opinions of those men, any sound practical inferences. These are not evidences to the man, who is not satisfied till he observes and thinks for himself; and who is not impatient of the labour of doing so. But, if men will have it so, and if authorities alone are to arbitrate the question, it will not be difficult to collect an immense majority of medical voices in favor of *Apoplexy* being *exclusively a brainular disease.* My justly celebrated preceptor, Dr. Cullen, has been quoted by almost every man who took a part

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in the controversy. His whole history of *Apoplexy* is strikingly luminous, and accords very exactly with what I have enumerated as the general opinion; and in his treatment of the disease, if he do not positively forbid the exhibition of *emetics* (about the employment of which there has been so much controversy) he very certainly does not recommend them. A quotation, indeed, from the manuscript lectures of Dr. Cullen, admitting of the use of *emetics*, has been communicated to us anonymously; but as it comes in this shape, it ought not to have been given at all, for it is not evidence.

During the last fifteen years, I have visited a very considerable number of patients labouring under *Apoplexy*; and although I have not preserved in writing perfect histories of all the cases which have occurred, yet I have the most complete recollection, that all of them (except those which were accompanied by phænomena so vehement as to place them out of the reach of professional aid) either experienced a temporary *alleviation* of symptoms, or eventually a *cure*, from *general* or from *local bleeding*. I ought to observe that I never administered an *emetic*.—To me this instrument appears an awful one indeed.—I should tremble to employ it. I *once*, and only *once* in my life, saw an *emetic* exhibited in a case of *Apoplexy*; my subordinate situation forbade my interference. The case was a fatal one. Since the commencement of the Controversy, which for so many months occupied the pages of your Journal, I have been consulted for four cases of *Apoplexy*. Two of my patients perished; two are alive and well. The first fatal case was that of a gentleman, of about fifty years of age, who, after a light dinner, was seized with symptoms of vehement *Apoplexy*. Previous to the arrival of a respectable practitioner, an *emetic* had been administered, and had operated. *Local bleeding*, *blistering*, and *purgatives*, were then properly, I think, though fruitlessly, employed. About fifty hours from the period of attack he perished. I visited him with Mr. Maud, a few hours before the closing of the scene.

The second fatal case was a gentleman of a full habit, and about sixty years of age; who, for several years, had been subject to slight *apoplectic* symptoms, which were very generally succeeded by symptoms of *paralysis*; and towards the latter part of his life those symptoms terminated in *hemiplegia*. From the first of his being seized, I occasionally saw him; and, from time to time, I afforded him relief by *shaving his head*, by *blisters*, *local bleeding*, and

 laxatives;

laxatives; and even at the last, when he was labouring under the phænomena of a vehement *Apoplexy*, he very certainly derived some temporary relief from the application of *leeches* to his temples. Mr. Carr assisted me in the treatment of this case from the beginning.

The third case, and a successful one, was a married woman, about forty years of age, who was seized with symptoms of *Apoplexy* in the morning, as she was going into her garden. Symptoms of *hemiplegia* succeeded to this affection. I saw her with Mr. Maud; *leeches* to the temples, *blisters*, and *drastic purgatives*, were employed with manifest and immediate advantage. For several weeks, however, the phænomena of *Apoplexy* continued occasionally to recur, and were always successfully combated by a repetition of the remedies described. My patient is now in perfect health.

The last case was a gentleman, of sixty years of age, and of a habit remarkably plethoric. He dined as usual; and as he was walking in his garden, he sunk suddenly under symptoms of an apparently vehement *Apoplexy*. A surgeon was immediately sent for, who, I think, with much propriety, took from his arm a large quantity of *blood*, and *blistered* him. At the time when he was seized I was also sent for, and I arrived at the patient's abode about two hours after he fell down. The instruments, however, which Mr. Sykes had employed, had much abated the violence of the symptoms. I advised a repetition of the same remedies, should circumstances demand their administration; and, in addition, I recommended the immediate employment of *laxatives*. The patient soon recovered, and is now in perfect health.

I cannot quit this truly interesting subject without adverting to a measure which, I am persuaded, will be found to operate most powerfully in the prevention of this awful disease. I allude to *a limitation of the use of fluids, in habits predisposed to Plethora and Apoplexy*. I am taught, by long observation and experience, to expect effects highly beneficial from the adoption of this plan. The phænomena of *plethora* and *obesity*, are (as I have constantly observed) referable, not to the taking in of *solid*, but of *liquid* nutriment. I am persuaded that few observations are more generally true than this; and it is a rich field for future enquiry. A Mr. Davidson, many years ago, called the attention of his brethren to the effects of the limitation of fluids, in cases of *pulmonary hæmorrhage*; and from the reasoning and facts which he adduced on the subject, I think

I think it ought to have excited more general interest. At present I shall say nothing in elucidation of the doctrine; but only observe, that a few trials will soon operate to the conviction of every practitioner, not only of its strikingly beneficial but extensive influence. A very remarkable and successful application of this doctrine was lately made in counteracting a singularly strong predisposition to *Apoplexy*. The ingenious experimenter was Dr. Ryan, of Kilkenny; and, from the Eighth Volume of your Journal, I extract the following expressive quotation:

"The efficacy of this (a partial abstraction of fluid) was prominent and striking above every other remedy employed; the pulse lost of its force, of its hardness, of its frequency and fulness. So sudden and manifest was the transition from morbid to healthy action, after the adoption of this plan, that the exemption from disease, which took place, and the prolongation of life, may be in a great measure attributed to its influence."

I am, &c.

Bradford,
March 18, 1803.

GEO. MOSSMAN.

P. S. A paper on the subject of *Febris Puerperalis* will in a few days be transmitted to you. The subject is of high interest. The *proximate cause* and *successful mode* of *cure* are still *desiderata*. This *Fever* has been little treated of in your Journal; and by the exhibition of some new matter, I hope to excite a discussion respecting it.

On the EXTERMINATION *of the* SMALL-POX, *in reply to a Paper in the last Number of the Medical and Physical Journal, on that Subject.*

MANY have advanced objections against extending the practice of Vaccine Inoculation, because they deemed it insufficient to secure the constitution from variolous contagion, or because they imagined that by sowing the seeds of future maladies, it might prove eventually more destructive to the human race than the Small-pox itself. The practice has lately been condemned on a very different ground, for no other reason but because the vaccine is an effectual security against the horrid scourge which has so long depopulated the species, and is likely to effect its extermination from the face of the globe. The argument

may be exhibited clearly in the following manner. The Small-pox is a most destructive disease, therefore no attempts should be made to prevent its ravages. The Cow-pox will secure the constitution from variolous contagion, therefore medical men are blamable in recommending its adoption.

These strange conclusions the writer endeavours to support and to justify in a serious tone.

It appeared on a superficial perusal of his paper, that he was treating the subject in a style of irony; that he professed to espouse and recommend opinions, which, by the weak support he gave them, he meant in reality to ridicule or disprove; but on farther examination it was conceived, that he was truly serious in asserting that the Small-pox ought not to be prevented, because it occasions so great a mortality among mankind. It will, however, be proper to state the intermediate steps of the argument by which he is brought to this remarkable conclusion.

1. As great a number of men exist at all times as the earth is able to support.

2. Vice and misery were understood to prevent an increase of population.

3. Disease is a species of misery, and Small-pox is a species of disease; therefore,

The Small-pox ought not to be prevented, for some other malady, equally or even more destructive, would probably be substituted in its stead.

As to the first position, it is very questionable if not absolutely false. Islands thinly peopled, or entirely uninhabited, wide tracts of uncultivated land in different parts of the globe, are sufficient to remove the apprehension that the earth cannot support a greater number of inhabitants than at present exist. Cultivation alone is wanting. The earth would be more bountiful if men were more industrious.

Labor omnia vincit
Improbus.

The second position, which asserts that vice and misery are introduced, in order to prevent an unsupportable population, requires proof. The origin or final cause of vice and misery is a subject which baffles our mental powers, and defies explanation. It is a depth which reason cannot fathom. Fertility of invention and skilfulness of discussion, the accuracy of logic, and the dexterous subtlety of metaphysics, have been exercised to no

purpose.

purpose. The greater part of mankind still confess their doubts and dissatisfaction on this point; and the small number who imagine they can solve the difficulty, and propose various theories with this view, have only served to convince others more strongly of the impenetrable darkness which envelops the subject they attempt to illustrate and explain.

But the writer of the paper to which I reply, seems to consider the origin of vice and misery as a problem very easy to be demonstrated; and asserts, with the utmost confidence, without taking the trouble to advance one proof in support of his position, that the final cause of vice and misery is to prevent a greater population than the earth will support.

A weak and precipitate solution of a difficult and perhaps unanswerable enquiry, ποθεν το κακον.

The efforts which have been made to explain this subject, and the doubts which are still entertained, evidently shew, that the writer's second position requires proof before it can be admitted as true, and allow great room to suppose, that if he had attempted to elucidate the point, he would, like others, have failed. It is matter of surprize, that an assertion of this nature should be chosen as the principal support of an opinion, so important that, if received, it would destroy the beauty, the vigor, and the lives of millions.

Against the third stage of the argument I do not contend. Disease is, without doubt, a species of misery, and the Small-pox is a species of disease.

But the conclusion cannot be allowed, for it is deduced from premises which are doubtful or false.

Besides, the conclusion, if it has any weight at all, has too much. It proves the impropriety of attempting to prevent any other disease as well as the Small-pox. It is absurd to imagine that it applies to one and not to all. Can any reason be given why we should endeavour to prevent a disease which is mild, and not one which is highly destructive. There are many maladies which afflict us, and contribute to thin the ranks of mankind. According to the author's mode of reasoning, it is improper to adopt measures for the removal of any disease, lest population should increase too rapidly for support.

All complaints, whether mild or violent, or innocent or destructive, from the slightest indisposition to the most formidable malady, must be borne patiently, without the smallest effort to alleviate, remove, or prevent them.

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The Faculty are only counteracting the intentions and designs of Providence, when they endeavour to preserve the health of their fellow-creatures. The physician who prescribes, and the patient who uses the medicine, are both equally culpable. These absurd consequences, evidently deducible from the author's conclusion, will, it is hoped, induce him to abandon the strange opinion which he has attempted to support. Far from adopting his sentiments, I cannot forbear thinking, that as it is one of the grand principles of our nature to wish to avoid pain and death, so it is not improper, either in us to prevent disease, or in the Faculty to warn and instruct us to prevent it; that if we are able to destroy a malady which, in every age, devours its millions of victims, it becomes a duty to do it; that if the author of Nature wished to diminish, or stop the increase of population, by the continuance of the Small-pox, he would not have permitted the means of preventing this dreadful disease to be discovered; that since he has permitted the means to be discovered, he commands us, in our instinctive principles, as we regard our own happiness, the happiness of our children, our relatives or friends, our neighbours, our countrymen, and all mankind, to embrace with eagerness and gratitude the blessing which is offered to our acceptance. Even if we argue on the author's principle, and imbibe his apprehensions on the subject of an increased population, we might, with earnestness, recommend and adopt the practice of Vaccine Inoculation. During the late ravages of war, such multitudes have fallen in the field of battle, that it seems necessary, in order to replenish the world, that some destructive disease should be annihilated.

I do not think, therefore, that medical gentlemen are unjustifiable, but, on the contrary, highly deserving of applause, for the steps which they have taken to effect the extermination of the Small-pox.

And I must say, in conclusion, that it has been, is, and ever will be, my custom, when I am attacked with any complaint, instead of letting it take its course, lest population should increase too rapidly, to seek and employ the most likely means of alleviating or removing it. I have often yielded to the solicitations of my friends, who advised me to all such precautions as might prevent cold, or rheumatism, or fever, or any malady to which, on different occasions, I might be exposed; and pursuing the same plan of conduct, I have taken particular care to secure

cure the constitution of my children from the attacks of the Small-pox, by having them inoculated as early as possible with the Vaccine.

J. J.

Case of Hydrothorax, *by* Mr. Low, *Member of the Royal College of Surgeons, London.*

Mrs. R. No. 47, Bell Street, Paddington, aged fifty-three, of a robust stature, with a short neck, and of a sanguineo phlegmatic temperament, had throughout her life enjoyed a very good state of health, (except having experienced, at different periods, several rheumatic and slight arthritic attacks) until a short time previous to the 18th of August last, at which time I first visited her; she then complained of violent pains of the upper and lower extremities, the joints of which were much tumefied, the legs even anasarcous; the pulse was frequent and irregularly intermittent; the bowels were costive, the tongue was white, with thirst and other febrile symptoms. I ordered an electuary with c. tartar. Pulv. jalap. & elect c. senna to be taken occasionally, to keep the bowels open; a saline diaphoretic mixture to be taken every sixth hour, with a pill containing calom. ppt. gr. j. pulv. ant. Lond. gr. iij. and a stimulating linniment to be rubbed upon the pained tumid joints twice a day. By persevering in this plan, in less than three weeks, the fever, and the pain and swelling of the joints, which I then supposed to be the most urgent symptoms, abated. My patient at this period informed me, that she had, for six months past, felt great inconvenience in lying upon her left side, and which she now found quite impracticable; her respiration had also become very laborious; she started frequently, and awoke with considerable disturbance from her sleep, and was obliged to lie with her head very much elevated; the pulse was still frequent and irregularly intermittent; the legs also continued to be much swoln, receiving the impression of the fingers when applied to them; the urine was high coloured and sparing in quantity, and the bowels were costive, except when the electuary was taken. No undulation could be perceived upon shaking the thorax or striking it with the fingers, which sensation, although it has been laid down by almost every author who has written upon

upon the subject, as regular in its occurrence, I have never yet been able to detect except in empyema, where one side of the lungs has been almost totally absorbed. In this state of the disease, after applying a large blister upon the right side of the thorax, I directed twenty-five drops of the saturated tincture of digitalis (obtained from Apothecary's Hall) to be taken three times a day, and in the space of a fortnight, a very considerable abatement was perceptible in every symptom. The pulse had become much more regular, and was reduced in frequency from 110 to 64 pulsations in a minute; the oppression of the chest and difficult respiration were considerably relieved, the swelling of the legs had also very much subsided; she now could enjoy several hours sleep, which she had not done for six months previously, and was capable of taking gentle exercise about the room. I now ordered the dose of tincture of digitalis to be increased to thirty drops three times a day, which was persisted in for about three weeks longer, by which time my patient perfectly recovered; no interruption could now be perceived in the pulse; she could sleep well through the night, could lie down on either side without suffering any inconvenience, and was capable of attending to every domestic occupation.

I have exhibited the digitalis in several cases similar to the above, most of which have been attended with nearly an equal degree of success. I have also given the digitalis in several cases of ascites, but not with that success which almost invariably has occurred from its exhibition in hydrothorax.

Does the efficacy of digitalis depend upon its power of retarding the accelerated action of the arterial system, thereby causing its secretions to be diminished, and thus giving an opportunity to the absorbents to take up the accumulated fluid, which may be deposited by a retrograde action (as explained by Dr. Darwin in his Zoonomia) either into the stomach, intestines, kidneys, or bladder, causing vomiting, catharsis, or diabetes?

Tavistock Row, Covent Garden.
April 2. 1803.

REPORT

REPORT *on the* DISEASE *which prevailed lately in Paris under the Name of the* GRIPE; *communicated by our Correspondent.*

THE prefect of the department of the Seine having desired a statement to be drawn up of the symptoms and mode of treating this disease, Citizens Lapisse, Bouvier, Sedillot, and Leveille were appointed by the Society of Medicine of Paris to comply with the wishes of the Government. Of this Report the following is an Extract.

They state the disease to be a mild catarrhal fever, but liable to dangerous consequences from causes to be hereafter detailed. The exciting cause they attribute to great variations in the temperature of the air for two months previous to its appearance; to north and north easterly winds which prevailed during the nights, and to the south south-west which blew during the day; to the sudden changes of temperature, which in a few hours was observed to vary from 5 to 6 degrees above Zero to 5 or 6 below. To this they add the humidity of the autumn, which had succeeded a long-continued drought, and which they conceive rendered the animal body extremely irritable. The well known history and treatment of all the catarrhal diseases which have appeared in France since the year 1500, leave no room for practitioners to doubt as to the nature or cure of this disease. They state the general symptoms to be, uneasiness, loss of appetite for some days previous, shiverings succeeded by heat, pain in the head, particularly in the forehead above the eye-brows, sense of weight, partial sweats, white, sometimes yellowish tongue. The fever recurs at night, with remission of the symptoms towards morning; the pulse is frequent, hard, sometimes depressed, and getting stronger as the complaint advances to a crisis. The fever continues three, five, seven, twelve, fifteen days, and often longer, but its character changes. Its termination is accompanied either with changed urine or by abundant and general sweats, or by a puriform expectoration, mucous or bilious purgings, and sometimes many excretions unite to complete the crisis. The varieties in the seat of the disease they state to be, 1st. Catarrhus nasalis; in addition to the usual symptoms were observed, vertigo, acute pain in the ears, swelling of the parotid glands and of the face, sometimes painful and putting on an erysipelatous appearance. The conjunctiva was inflamed, with a flowing of tears more or less acrid, irritating

tating and excoriating the cheeks, &c. Sometimes these parts became swoln, without any discharge whatever.

2d variety, Catarrhus gutturalis or quincy. To the common symptoms were superadded a slight phlogosis only of the fauces, painful sensation along the trachea, and aphonia, with a large discharge of thick mucus from the posterior fauces.

3d variety, Catarrhus bronchialis. The common symptoms of this complaint were aggravated by a dry, hard, and continued cough with constant irritation, a difficulty of respiration, stitch in the side, wandering pains similar to rheumatic, expectoration difficult, frothy, sometimes streaked with blood, hæmorrhagy from the nose, chest, and hæmorrhoids, sometimes symptomatic, sometimes critical, but in general found to relieve the pain in the head. This complaint is difficult to distinguish from peripneumony and can only be determined by the degree of violence of the symptoms. This complaint terminates by spitting or sweats; expectoration becoming more easy and the spits more thick and puriform. Sometimes this complaint is succeeded by *metastasis* or imperfect crisis, and rheumatismal affections of the extremities.

4th variety, Catarrhus suffocans. This variety was fortunately but rarely met with. Old men, or those in previous ill health, were thus attacked. It was sometimes the consequence of bad treatment, or errors committed in the regimen, and frequently carried off the patient when danger was least expected. The increase of oppression about the breast, and of the other symptoms enumerated, was suddenly followed by diminution of strength; and a sudden congestion in the lungs closed the scene. It may not be unnecessary to observe, that the varieties here marked by the reporters have seldom been found isolated, the head for the most part became first affected, and successively the throat and chest, and very frequently many of these varieties appeared at one and the same time in the same person. The last variety which they notice is an affection of the stomach and bowels, marked by a discharge of mucus, with cholic pains, and often a dysentery, which carried off the person quickly. It makes a fifth variety under the title Catarrhus intestinalis.

They remark that the complaint sometimes puts on a more inflammatory appearance, in which the usual pleuritic symptoms are more violent and better marked; this variety has been seldom met with, though they think it may become more frequent if cold and dry weather should

set

set in and be continued any time. The complaint has been sometimes found associated with putrid fever among the poorer classes and in hospitals. These combinations every prudent practitioner will have in view, and are sufficient to shew that every exclusive curative method is only the suggestion of ignorance or of quackery. We have more fully detailed the part of the Report which is occupied with the appearances of the disease, but do not think it equally necessary to enter into the particulars of the prognosis or treatment; the former of which has been anticipated by observing that it was of a mild nature, and only rendered dangerous by the circumstances that have been marked. The catarrh often remains after the fever has passed off; relapses are frequent, and convalescence tedious. The sediment in the urine, sweats, and expectoration, mark the crisis. The causes which tend to exasperate the complaint are, neglect in the beginning, treating it as a common catarrh by endeavouring to restore perspiration, the improper use of evacuation, blood-letting, &c. and lastly, to the variety of quack medicines with which the city is inundated. We cannot avoid making one observation, in addition to those already extracted from the Report; that is, that in every general cause of mortality, care should be taken to separate the ordinary from the unusual causes of death. The public mind is too apt to exaggerate danger, and frequently confounds what occurs every day, and unnoticed, with what is considered to be new; and in the general alarm, they forget that other complaints are no less active than ever. No person is supposed to die but of the reigning disease. And if we add to this, the number of aged and infirm who at this period of the year only wait for an *excuse* to die, or, in other words, who only want the slightest cause to carry them off, we believe that the number of people who have died of the virulence of this disease is very small indeed.

The general treatment which they point out is, to keep the patient in bed, moderately warm; to give pectoral drinks, taken warm and in small quantity; decoction of bran, light broths, inhalation of warm vapours, drinks sweetened by syrup of marsh-mallows, of diacodion if there should be a loss of rest, which is generally the case; bathing the feet, emollient clysters; at the close of the disease some restoratives aided by light tonics; the more simple the treatment the more easy and certain the convalescence. In the case of quinzy they recommend the application of leeches to the throat, emollient cataplasms

to the region of the amygdalæ; in the case of nausea or mucous congestion, 15 to 20 grains of ipecacuanha. If difficulty of breathing should come on, synapisms or blisters to the throat, employed as rubefacients, and taken off as soon as this effect is produced. In the case of peripneumony, in addition to the general treatment, they recommend leeches to the side, bladders of warm milk or water applied to the affected part, and lastly synapisms and blisters. If the tongue be foul, with bad taste, and nausea, give ipecac. as an emetic; the watery extract of opium administered at night is useful, by calming irritation, exciting perspiration, acting lightly tonic, and aiding expectoration; this should not be given at the approach of the crisis. If the spitting be suppressed, and an increase of oppression, apply blisters.

In the suffocating variety, not a moment should be lost. A derivation from the part affected must be produced by any means. Sharp drinks, the oxymel scillit. in large doses, ipecac. united with tartarized antimony, antim. wine in small spoonfuls every quarter of an hour, blisters to the legs, between the shoulders and breast. In the affection of the intestines, ipecacuanha as an emetic in the first days, emollient drinks, mucilaginous clysters, restoratives, opiates joined with ipecac. or the bark, according to circumstances. These varieties of the complaint are successfully treated by aiding the efforts of Nature.

In the Inflammatory Catarrh, it is useful to bleed during the first days, when the symptoms strongly mark its necessity. The state of the pulse before and after the evacuation should be carefully observed, and never forgetting the principle, that in all popular diseases protrastation of strength forbids its repetition. If, when this method is had recourse to, the strength becomes too much diminished, an opposite plan should be adopted. In the catarrh, complicated with putrid fever, as well as the general treatment, we should administer ipec. or ant. tart. in the first days; keep the bowels free, but so as not to lessen the powers; emollient drinks, with small portions of emetic, vermifuge medicines, exciting draughts, into which the red oxyd of sulphurated antimony enters, or oxymel scillit. camphorated juleps, synapisms, blisters, and light tonics, persevered in during convalescence.

March 20, 1803.

CASE

Case *of* Inflammation *in the* Maxillary Sinus; *communicated by Mr.* John King, *Surgeon, of Walcot Terrace, Bath.*

DANIEL NEWTON, the subject of this local affection, is twenty-six years of age, of a light complexion, sandy hair, dilated pupil, of an irritable habit, such as one might in other respects consider as a subject of latent scrophula; he had been for several years a private in the Essex light dragoons, and when I was assistant surgeon in that regiment some years ago, was under my care at Harlow Bush Common, where he received a kick on his leg from a horse, and though the wound was not large or the contusion great, still it proceeded very untowardly, (though the patient was under strict medical regime) which indicated the nature of his habit, and serves to shew the permanency of scrophulous diathesis, under whatever change of external circumstances, so that in this instance powerful anti-pyrexial tonic remedies, bandage, and horizontal posture were required to produce the healthy granulation. You will excuse this digression, as it serves to shew the constitutional diagnosis of our patient.

Since the period above alluded to, he had been ordered with the regiment to Ireland during the rebellion, and this young man was frequently on duty in very inclement weather, which, together with the debility induced by a want of salutary rest, exposed him to repeated defluxions in the head. The rheum from the head, in consequence of such attacks, was copious and frequent, and at length the mucous membrane of the nostrils became considerably inflamed. The nasal duct partook of the affection, so as to occasion some slight epiphoral discharge, which always receded on the amelioration of his health; afterwards the mucous membrane, which lines the cavity of the sinus, became inflamed, painful and distended, and lastly injured the alveolar process, decayed the tooth, and forced a discharge through the socket; but nothwithstanding that, the matter would often find its way into the nostril, and drop down by the side of the inferior spongious bone, so that from the subsequent account it should seem, from the long continued obstruction, that the matter had affected the surrounding bones of the sinus. The expedient of extracting the tooth subjacent was strongly pointed out and performed, but did not afford a free egress to the discharge, so that afterwards, on his first application to me, I thought proper

proper to extract the tooth next in order, that the matter might have no obstruction to its descent; this step alleviated the disorder considerably. The pain, the distention, the external and integumental tumefaction and discoloration vanished. The egress to the discharge was uninterrupted, yet on a powerful inspiration it could be drawn into the nose and behind the velum pendulum palati. The discharge was very disagreeable, it dissolved the silver of the probe and turned it quite black, was very nauseating to the patient, and it was evident from the pallid, wasting and dyspeptic state he was reduced to, that its effects on the habit were morbidly increasing.

He assured me he had no local remains of any venereal complaint (unless this might be considered as such) nevertheless I judged proper to stimulate the system with bark and mercury, using by way of lotion the aq. zinci. vitriol. camphor. diluted, and drinking lime water, by which means he soon felt a sensible improvement in his health; the discharge diminished, became less offensive, but did not entirely cease.

With a very attenuated probe, which I gave the patient to insert at the aperture in the socket, he could make it pass directly into the nose, and by taking a fluid into his mouth and exhausting his mouth of air, the fluid could be made to pass in at the alveolar aperture and distil through the nose. This effort I desired him to repeat very often with lime-water, common water, or diluted vitriolic water with camphor, which, by the repeated strong perflations of the air through the aperture and sinus into the nostril, at length dislodged a large tuberous portion of bone, black and fetid; it was with difficulty the patient could discharge it by the mouth. I presume the fragment was of the maxillary bone, from its substance, (which, together with the lamella of the palate and part of the descending process of the sphenoid bones, form the parietes of the sinus.)

A long time had elapsed before any amendment took place, and the surgeon under whose care he was, offered no assistance but the bare extraction of the tooth, applied no constitutional remedies; and therefore, with what hopes could parts endued with extremely limited vitality, expect to derive advantage from their own feeble efforts, and probably labouring under specific morbid action; it is clear that the unassisted local impulsions of parts, remote from the energies of the habit, are inefficient to the speedy expulsion of parts become diseased and extraneous I have little doubt that, particularly during sleep, as the matter

gravitated

gravitated towards the throat and œsophagus; that the first morbid impressions were conveyed to the stomach, probably by an operation analogous to capillary attraction, or by simple absorption, or both conjointly; indeed, the sympathies of the stomach were aroused by the mortification of a large portion of bone pent up in the vicinity of the throat.

The effluvia itself was a cause of debility and evomission proving directly debilitating. I cannot be mistaken in this, from the speedy restoration consequent upon the extrusion of this offensive tenant; and I am convinced that the health of our patient, which was, before he applied to me, deteriorating very rapidly, with imminent symptoms of hectic, constriction on the chest, dry cough, and flushing, nausea and morning pukings, obstipation, and cholicy pains in the abdomen, must have shortly become irreparable, but by removing the torpor of the alimentary canal with bitter purgatives, increasing the secretions with mercurial stimuli, exercise and nourishing light diet, and invigorating the habit with anti-asthenic remedies. The exfoliation and extrusion of unsound parts was at last effected, after many months had elapsed from the first discovery of the disease; and now, when the discharge is very slight, is inodorous and insipid to the patient, and what one might denominate muco-puriform rather than matter itself; this, conjoined with good health, may induce us to conclude the cure is complete, or not far off.

I beg pardon for detaining you so long on so rare a case, what I wished was chiefly to impress an idea of the feebleness of chirurgical aid alone, rather than to convey instruction, and never to forget to make the instruments of medicine operate from the centre to the circumference, in order to improve the art of chirurgical medicine, an art capable of much greater extension, and an object of the highest utility; for though Nature is of herself a blind guide, she is tractable and obedient to well ordered direction.

P. S. It may be needless to add, that mercurial frictions were ordered along the course of the nasal process of the maxillary bone, and that the loss of bone has left a large space in common to the sinus and nostril, opening just above the inferior turbinated bone; to restore the tone of the parts, I cause him to wash them, by making common water pass through the aperture and out again through the nostril in a stream, but no inconvenience results from this void at present, and no doubt it will shortly become of no importance when the parts consolidate.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

YOU well know that all medical science at last centres in the cure of diseases, and that is the most useful part which enables us to effect it.

Although no *uniform* method of treatment is capable of effecting a cure in *all* the cases of internal suppurations of the chest, as difference of constitution, temperament, &c. has peculiar influence on the event; yet, I hope the following case of empyema, which occurred in May 1793, under the care of Dr. Saunders and myself, and which was inserted in the 5th Vol. of Memoirs of the Medical Society of London, (p. 215) may, when given more at large, be of some use to the medical practitioner.

It is perhaps as singular a complaint as is to be found in the records of medical history, and though it terminated successfully, yet we cannot be too cautious of entertaining hopes of a patient's perfect and permanent safety after such extensive and violent internal suppurations of the chest, until a sufficient time has elapsed. "Dr. Beddoes justly observes, in his late publication on the effects of Digitalis Purpurea, that in the reports of physicians concerning diseases of long continuance, it is a common fault that they drop the story too soon, leaving the intelligent reader uncertain, whether the long established habits of morbid action may not have returned after the apparent recovery."

It is now nine years since Mr. Metcalfe's illness, and I have the pleasure to enclose a letter which I received from him, dated at St. Petersburgh, June 19, 1802, which confirms his cure being permanent.

I also inclose a letter from my late worthy and intimate friend Mr. John Hunter, by which will be seen the small expectation we had of saving his life.

THE CASE.

May 16, 1793, Mr. John Metcalfe, aged sixteen, of an athletic make, and sanguine habit, when in a violent perspiration from exercise, stood in his shirt exposed to a cold north wind. In the evening he complained of a sharp pain in his left breast, and across his loins; and, feeling chilly, he drank some warm brandy and water and went to bed. He was very feverish in the night, and rested badly, and in the morning of the 17th I was desired to see him.

He

He then complained of a pain across his chest, and particularly in the region of the left kidney; his skin was very hot, his face like scarlet, his breathing very difficult and painful; pulse 100, hard and full.

Eighteen ounces of blood were taken away, a large blister applied to the side, and the following medicines given:

℞. Nitr. purif. gr. xvj. cr. tartar gr. viij. sal ammon. gr. iv. sulph. aurat. ant. gr. ij. sumt. unam 2do. vel 3tia. quaq. hora ex paulo aq. hordeat. superbibendo cochl. iij. misturæ sequentis.

℞. Aq. puræ ℥iſs. acet. scillit. mellis brittan aa. ℥j. M. ut supra exhibend.

18th. This morning his breathing easier, pains less, pulse 96, not so hard; had a motion in the night, made water with difficulty, and urine muddy.

℞. Aq. menth. sativ. ℥v. tinct. stomach. ʒv. acet. scillit. ℥j. sal. diuret. ʒij. syr. sacchar. ʒiij. M. sumat. cochl. iij. 2do. quaq. hora vel urgente dyspnœa.

In the evening very restless, pulse unequal and tense, skin very dry, and cough hard. Twelve more ounces of blood taken away; had two motions.

℞. Pulv. Doveri gr. iij. Kermes mineralis gr. ij. confect. cardiac q. s. fiat bolus 4tis hora sumend.

℞. Decoct. rad. senekæ ℥iſs. spir. minderer. ʒiij. spir. nuc. mosch. ʒj. pulv. tragac. comp. ℈j. nitri. purif. ℈ſs syr. sacchar ʒj. M. post. sing. bol. sumend.

19th. He was better; pulse 84, soft, skin moist, pain across his loins entirely gone, breathed easier, urine high coloured. Continued the same medicine, with lac. amygd. pro potu.

20th. This morning his breathing became very difficult, and the pain in his chest more severe; his pulse 110, and tense. Took away five ounces of blood, which, on standing, had a greenish film on top, and cupped. A laxative glyster was given.

Dr. Saunders was called in, who ordered eight ounces more blood to be taken away, and four grains of James's powder to be taken every four hours, with a saline draught. The blood had a yellow greenish crust; crassamentum of a loose texture.

25th. He continued the same medicines, with an occasional laxative of sal polycrest and rhubarb. Pulse 84; expectorated freely, breathed quick, cough frequent, urine natural colour, pain nearer to the vertebræ. Took three spoons full of a decoction of seneka root with nitre.

June 2d. Pain less severe, breathed better, skin moist, urine

urine thick with red sediment. The left carotid artery beat 110 times in a minute; the pulse at the wrist 88.

4th. Pulse 86, weak; the pain shifted to the chest, his belly much swelled and very painful. Applied a blister to the part, and gave

℞. Pulv. scillæ. calomel aa. gr. j. extr. thebaic. gr. ß. M. f. pill. h. s. sumend. with a draught of almond milk and nitre.

5th. This pill generally procured a good night, and gave a stool with mucus in it. The pain shifted to the left shoulder.

12th. He continued much in the same way, the pain shifting from the shoulder to the *right* side, which was very acute when he coughed. Three ounces of blood were taken from his back by cupping, and his side was dry cupped, which gave great relief. Dr. Saunders was again consulted, who ordered,

℞. Sal c. c. gr. viij. confect. democrat. ℈j. aq. puræ ℥ij. spir. nitrid. ʒj. M. to be taken three times a day.

June 16th. Great tightness across the abdomen; pain in his side and cough the same, a laxative of rhubarb and sal polycrest was given; in good spirits.

17th. The pain got under the axilla and left shoulder.

22d. Pulse 100 and weak; great pain in his side; cannot rest on his right side; applied a blister, and continued his volatile anodyne draught every eight hours.

25th. Pulse 110 and weak; Dr. Saunders ordered P. Myrrh. gr. x. sal absynth. sal martis aa. gr. iv. spir. n. m. syr. balsam. aa. ʒj. M. bis die sumend. and volatile anodyne draught at bed time. His appetite good, and all sorts of fruit agreed with him, *except* strawberries, which always agreed before and after his illness.

July 3. A tumour appeared under his left nipple, attended with pain, and projection of his ribs; pulse 112, small. Dr. Saunders ordered emplastr. magnum gummos. parti dolenti. Chalybeate and anodyne draught continued as before.

14th. Pulse 120, weak; cough frequent, with acute pain in his breast; could lie on either side. ℞. Aq. hordeat tep. ℥v. oxymel simpl. ℥iß. tinct. scillæ. gutt. xxx M. sumt. cochl. iij. 4to. quaq. hora.

15th. Tumour larger; had good appetite; two motions in twenty-four hours, with very great sediment in his urine. Medicines continued as before.

20th. Tumour more prominent, fresh gum plaster applied. The pulsation of the carotid artery was 140 times in

in a minute, that at the wrist 110. This day, he said, he felt something give way in his breast, the pain then ceased. His urine for many days past, deposited a large branny sediment. Continued the vol. anodyne draught at bed-time.

21st. His cough very frequent, breathing short, tumour larger, pulse 120, hard, small, and weak. ℞. Aq. pulegii ℥v. lac. ammon. ℥ij. oxymel scillit. ℥ij. elix. paregor. ʒijß. vin. antimon. ʒij. M. sumt. cochl. j. urgente tussi vel dyspnœa. Had six poultaceous stools, with much pus and mucus; these copious evacuations made him very faint; the pulse softer and fuller, carotid artery beat very quick, great sediment in his urine. He passed a very good night, coughed seldom, and had very little pain.

23d. I this day observed his heart to beat on the *right* side. Mr. Blicke, surgeon of St. Bartholomew's Hospital, met me this day to examine his side. The tumour was less, pulse slower and fuller, and the pain scarce perceptible; he could lie on his back and on either side; had three stools with much green mucus, made little urine. I substituted sal diureticus, gr. xv. with an opiate, instead of the volatile salt, at night, and a tea-spoon full of Castor oil next morning.

29th. Continued diuretic salt with opiate at night, ol. ricini. next morning in small quantities. Had no cough nor pain for some days past, until this day, when he drank porter, after which he expectorated much phlegm; had three solid stools with much mucus, and great sediment in urine; pulse 112, firmer, his heart still beating on the right side of the sternum.

31st. Medicines continued as before. Pulse 110, small and weak; urine clear, with a cloud near the bottom.

August 2, Finding himself better, went on-board his brother's ship; returned without pain or cough; pulse 100, soft, full, and firm; urine clear with a cloud, and mucus in his stools.

4th. Continued anodyne diuretic draught twice a day; he thinks himself better and stronger; cough a little troublesome; pulse 100, great sediment in his urine, had three stools but no mucus with them.

6th. A small tumour was perceived betwixt the seventh and eighth rib on the *right* side, the heart was still more on the same side; pulse 100, soft.

10th. Mr. Turnbull, surgeon to the Eastern Dispensary, examined him with me. When placed in a recumbent posture, the small tumour on the right side emptied itself;

 when

when pressed upwards it gave great pain. The pulsations at the wrist 110, those of the heart more frequent.

12th. The rising of the ribs of the left side continued nearly the same; applied a fresh gum plaster to it; the small tumour betwixt the ribs on the right side became painful.

13th. Wrote to my worthy friend, Mr. John Hunter, to have his opinion; he was so employed with army business, he could not meet me, as you will see by his letter which I enclose.

14th. This morning his pulse was only 80 beats in a minute, soft and full. In the evening I was sent for, on account of a rising of phlegm in his throat with constant cough. On applying my hand to the tumour on the right side, I could perceive it fill and empty every time the patient coughed. Pulse very quick; gave small but repeated doses of a solution of vitriol. alb. which relieved him for the present.

16th. The tumour was larger, and filled at every expiration. Seeing the urgent necessity of an immediate opening from my own experience as well as the opinion of many eminent surgeons,* I proposed opening it, but was not permitted.

19th. The tumour on the right side was very painful, and discoloured, expectoration viscid, very great sediment in his urine, pulse unequal.

20th. This day at noon he had an incessant cough, and began to spit thick matter of a greenish colour; when I got to him at five o'clock, he had spit three half-pint basons full, and was like to be suffocated. As I went I met with Dr. Turnbull, Physician to the Eastern Dispensary, who accompanied me, and agreed that an *immediate* operation was necessary, which I performed by making an incision betwixt the seventh and eighth ribs on the right side, rather larger than two inches, and *nearer* to the *superior* edge of the lower rib, than the *inferior* edge of the upper, to avoid the risk of wounding the intercostal artery. Fifty-two ounces of thick matter were evacuated, similar to what he had spit up. Applied a poultice with flannel bandage and scapulary, and the patient was put to bed. The pulsation of the heart was near to the right axilla, and too

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* Vide Warner's Cases in Surgery, p. 160, &c. Gooch's Cases, vol. ii. p. 139. Kirkland's Enquiry, vol. ii. p. 176, 179, &c. Duncan's Comment, vol. ii. p. 427. Dr. Hunter's Lectures. Mr. Bell's Medical Memoirs, vol. iii. p. 132.

too quick to be counted; the pulse at the wrist 136. His breathing, forty-eight times in a minute. He was placed on his right side, and gave volatile anodyne draught.

21st. He passed a very good night; a very great discharge from the wound; pulse 96, soft and full, with a florid colour in his cheeks. Dr. Saunders, his physician, and Mr. Haighton (now Dr. Haighton) came to see him. In the evening, pulse at wrist 120, small and weak. He coughed very little; lived on barley water and milk, had a good appetite, which never once failed him during his illness, but his strength much reduced. Volatile anodyne at bed-time.

22d. He passed a very good night; pulse 98, soft, full, and firm; a very great discharge on dressing the wound; no pain of his side, but a little soreness about the incision. Takes milk for breakfast and supper, wine and porter with his victuals at dinner. As the heart, notwithstanding the great evacuation of matter, still remained near the axilla, I wrote to Mr. John Hunter for his opinion, which he gave me in the letter I sent.

25th. The discharge from his side diminishing, and tumour under the left nipple much less; pulse at wrist 90, right carotid artery 130; his cough was much better, but very much reduced; the heart approaching nearer the left side ℞. Sal diuret. gr. xv. rubigo ferri, gr. v. confect. opiat. ℈j. Aq. pur. ℥iß. spir. juniper comp. ʒij. M. h. s. sumend. omni nocte.

29th. Tumour on his left breast quite disappeared, and the heart *under* the sternum; it remained in this situation three days. His appetite good, in good spirits, could walk up stairs without his breathing being affected. Continued the same medicines.

September 1, He spit freely at night, but not in the day; as the discharge from the wound diminished, and a fullness appeared below the orifice, enlarged the aperture, and applied a poultice; pulse 98, fuller; had a good night.

4th. This is the first time the heart was felt on the LEFT side of the sternum; no pain, less expectoration, pulse 90, soft, full, and firm; breathes quite easy; went out in a coach for the last three days, and was much stronger.

6th. As the discharge from the side was much diminished, and spit near three ounces of pus every night, though none in the day time, from the experience of five successful cases of a scrophulous nature, under my care, I made two issues betwixt his shoulders, by means of caustic, to hold three peas each, and gave him tonics and volatile anodyne

anodyne draught every night at bed-time. ℞. Pulv. myrrh. ʒj. sal absynth. sal martis aa. gr. xv. sacch. alb. ʒij. aq. puræ ℥viß. spir. cinnamon ℥ß. M. sumt. cochl. iij. bis de die.

6th. Pulse 92, soft and firm; the heart two inches on the *left* side of the sternum. His diet was milk and fruit, breakfast and supper; bread pudding and light animal food for dinner, with porter and wine; oysters when hungry; went out in a coach every day; sleeps well; generally three stools a day; urine natural.

15th. As he slept well, expectoration trifling, he left off the night draught, and continued the chalybeate mixture, with daily exercise.

19th. He gets stronger daily; breathes short; no expectoration when he coughs, which is but seldom; air passes through the wound in his side; little discharge from the wound, but much from the issues. The dressing to the wound was cerate saturnine with one-third cerate citrinum.

26th. He walked from Burr Street to Broad Street, distant a mile and a half, to see his physician, to let him know his heart was returned to its proper place, and walked back without the least inconvenience. He now gained strength rapidly, and began to recover his flesh and healthy florid complexion.

30th. He went to Stockton his native place by sea, taking with him some chalybeate pills and other medicines, and arrived safe much improved in his health.

October 16, Received a letter from him at Husworth, near Darlington, acquainting me he rode out every morning without fatigue, that the wound in his side was healed, but the issues continued to discharge freely. He continued to take two of his chalybeate pills every day; lived on milk morning and night, and light animal food with a few glasses of wine and ale after his dinner. He continued in the country, and finding himself in the most perfect health, he suffered the issues to heal in January, 1794. He came to London; and in October went to Elbing, in Ducal Prussia, and remained there and at Petersburgh, in the most perfect state of health, as appears by his letter I received, dated June 19, 1802.

To some persons, so minute a recital of facts may appear tedious and unnecessary; but they ought to consider that this was the first, and is still the most certain method of improving medicine. An account of so uncommon a disease, requires a circumstantial detail of all the circumstances, preceding, attending, and following the method of

of treatment, in order to elucidate, if possible, the nature of the case. The most similar and successful case, which I know that resembles my patient's, is given by Dr. Farquharson, of Edinburgh, in the third volume of the Memoirs of the Medical Society of London, of a young gentleman, eight years of age, whose heart beat on the *right* side of the chest, in consequence of a considerable swelling on the *left* side of his breast. Two months after his first seizure, an opening was made into the cavity of the thorax through the most depending part of the tumour; though near two pounds of pus was discharged, yet it did not afford permanent relief until a long leaden canula was introduced, by the advice of Mr. Bell, which reached to the bottom of the cyst.

It may be useful to consider whether Mr. Metcalfe's case originated from constitution or temperament.

He says, in a note I received from him, in 1794, that about six years before, when about ten years of age, he had an abscess in his right side, and was under the care of the late Mr. Rudd, of Darlington, who opened it, and kept it open for three years; after it was healed, he had small abscesses on his left arm and clavicle, which soon got well by bathing it with Croft-Well water. From that period he enjoyed a good state of health until his last illness, and always lived in the most temperate manner.

The patient's father informs me, four of his children died of similar complaints. He has now living five sons and three daughters, all healthy men and women.

Does not this case afford a strong proof of the benefit of caustics and issues, whether the operation is performed or not?

I have had several opportunities of cases under my care, of their salutary effects in diseases of the chest and spine. See a case of a navy surgeon, in the Medical and Physical Journal, Vol. iv. No. 50; and also the good effects of caustics, in Dr. Beddoes's Observations on the Powers of Digitalis Purpurea, Appendix, No. 3, p. 101, 104, 109.

I am, &c.

HENRY WASTELL,

Member of the Royal College of Surgeons, London.

Wellclose Square, April 11, 1803.

Brief Account *of the present* State *of* Medical *and* Physical Literature *in* Italy; *communicated by* Dr. Noehden.

Dr. Nolde, professor of the university of Rostock, in the dutchy of Meklenbourg, has lately made a literary tour through different parts of Italy, of which he gives the following account in a letter addressed to the Editor of the Salzburg Medical and Chirurgical Gazette. Of all the countries that have experienced the dreadful afflictions of the late war, none seems to have suffered so much as Italy, a country that will for a long time feel the consequences of those ravages by which it was devastated, and still bleeds of the wounds that were inflicted on the morality and industry of its inhabitants, and to the sciences with which it had long flourished. The study of medicine was equally neglected, and the medical schools, so much celebrated, were disturbed and dispersed. The hospitals were loaded with taxes and contributions, their property seized, their subsistence diminished; and at a time when poverty and diseases should have made them the refuge of want and misery, the number of patients which could have been received were unmercifully restrained.

About this time, when the revolutionary spirit had conquered the minds of the people, the Brunonian system became known amongst the Italian physicians, and their minds being filled with revolutionary ideas, it is easily conceived how ardently a doctrine would be received which threatens to subvert the hitherto known dogmas of medicine, even when sanctioned by the authority of ages. It cannot be denied, that the too precipitate and inconsiderate use or practical application of that doctrine has been extremely prejudicial to the life and health of many. Professor N. met with several practitioners in Italy, who though being themselves well wishers to the Brunonian system, openly confessed how detrimental the injudicial application of its principles at the sick bed had generally proved, and that it was rather to be ascribed to a lucky accident, if such a treatment had ever been attended with success. At the present time, however, the revolutionary enthusiasm having nearly subsided, the Italian physicians have begun to examine that system with a more unprejudiced mind, to expose it to the test of experience and observation, and to employ it with greater restriction. Zealous Brunonians

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are not now so frequently to be met with as before. Amongst the rational physicians of upper Italy, Dr. Rasori, formerly professor of the practice of physic at the university of Pavia, deserves particularly to be mentioned. This gentleman, who is favourably known to the public by several publications, and especially by his elaborate description of a very fatal epidemic fever at Genoa, has acknowledged, and pointed out the errors of Brown's system; in lieu of which he endeavours to establish a new one, namely, the system of the contra stimuli. Being at present engaged in translating Darwin's Zoonomia into the Italian language, he has deferred publishing his system till this translation has made its appearance, and to that period he defers its discovery. It is only known, that he was led to this new theory of medicine by the thus called depressing passions, and that he utterly denies the indirect debility of Dr. Brown. He assures his friends, that he has proved his theory by experiments made on animals as well as by observations at the sick bed. When it shall have been made public, professor Borda, of Pavia, intends publishing a Materia Medica adapted to the principles of this new system. The state of Medicine in the Roman and Neopolitan dominions is not very promising; there are few countries, in which the generality of medical men have kept so little pace with the modern improvements in the healing art; and it were rather to be wished, that the Brunonian theory had made some progress amongst them, in order to arouse them from their state of supineness.

The remedy of Dr. Reich in fevers has not been favourably received in Italy, except by Dr. Lusi and the two Flajanis at Rome; young Flajani has translated Dr. Reich's publication, to which he has added some observations of his own.

Of all the new discoveries lately made in the medical art, the cow-pox inoculation has particularly engaged the attention of the Italian physicians; the most important observations and experiments, however, relative to this great object have been made in the Italian republic, where, it is said, that above seventy thousand individuals have been inoculated, of which Dr. Sacco has vaccinated in the Milanese about twenty thousand. The work, in which he has published his observations, is sufficiently known to our readers. Still more interesting than Dr. Sacco's work, seems to be the following publication, which appeared by order of the committee appointed for the purpose of investigating the use of the cow-pox inoculation. "*Risultati*

tati di osservazioni e sperienze sull' Inoculazione del Vajuolo Vaccino, institut. nello spedale maggiore di Milano dalla commissione medico-chirurgica superiormente de legata a quest oggetto. Milan. 180[illegible]." Professor Fanzago in Padoua, and some other physicians in upper Italy, have likewise written upon this subject.

At Naples, where the small-pox have always been extremely fatal, Dr. Marshall, an Englishman, has the merit of having introduced the cow-pox inoculation, for which purpose he has published a small popular work, entitled, *Osservazione sopra il Vajuola Vaccino di Giuseppe, Marshall, M. D. Palermo,* 1801. The first child inoculated for the cow-pox was, by order of the king of Naples, re-inoculated with the small-pox, which however did not take, though this inoculation was once more repeated. From that time the cow-pox inoculation has met with a favourable reception, and begins to make much progress in the Neopolitan dominions. In Florence however, Siena, Pisa, and in the whole dutchy of Toscana, this great gift of heaven is almost generally disregarded, and a general prejudice has arose against the introduction of the vaccine inoculation, which some unfortunate cases seem to have produced, in which children happened to be inoculated for the cow-pox, who being previously infected with the small-pox contagion, got the small-pox, and died in consequence of them.

Galvanism has to this period not yet been employed in Italy to medical purposes, and no experiments have as yet been made with it on any patient. Mr. Volta lives at present in Como, his native place, retired from all public business. The antiphlogistic system of medicine is generally known and adopted; the apothecaries' shops, however, are on the whole in the most miserable state, except in upper Italy, where the medical police was always better regulated than in other parts of Italy, particularly before the time of the late war. At Rome and Naples they are bad beyond description.

The new chemical nomenclature of Signor Brugnatelli is sufficiently known. The following work has been lately published by the same author. "*Farmacopea al uso degli speciali e medici moderni della republica Italiana. Aggiuntovi la ta vola della sinonymia delle moderne nomenclature chimiche e la tarriffa delle preparazioni in questa Farmacopea, riportati da L. Brugnatelli, Pavia,* 1802." Signor Rezia, who is the present director of all the military hospitals in the Italian republic, is about to publish a Pharmacopea

copopea Militaris. Signor Gallini has lately published a compendium of Physiology and Pathology, 1802, which however seems to be much inferior to his Physiological Researches. Signor Flajani, the father, has not long ago edited the third volume of his Chirurgical Observations. Signor Nannoni, in Florence, has published, "*Viaggi e opere di Lorenzo Nannoni, chirurgo in capo dell' arcispedale di Firenze, Livorno,* 1801." Another work deserves to be noticed, viz. "*Della cura Fisica e politica dell' uomo di Giovanni Pozzi. Milano, a.* x. Professor Scarpa has edited a work on the diseases of the eyes; and of the following work the first volume has made its appearance. "*Teoria della prosperita fisica delle nazione nei raporti d' economia publica, &c.* Vol. i. p. 1. *Milano,* 1801. The author of this work is Dr. Racchetti, who seems to have chiefly made use of the classic German work, published by the celebrated Dr. Frank of Vienna. Dr. Brera has again enriched the catalogue of his works with a new one, entitled, "*Lezioni medico-practiche sopra i principali vermi del corpo umano vivente e le cosi dette malattie verminosi di Valeriano Luigi Brera, Crema,* 1802. It seems to be nothing but a mere compilation. Another work is *Principi di Medicina naturale del D. Giuseppe Nicoli di Ravenna, ed.* 4. *Milano,* 1802. Dr. Francisco Vacca Berlinghieri, professor at Pisa, has published, 1801, "*La Filosofia della Medicina, al cittadino Napoleone Buonaparte.* His son, a surgeon, has edited "*Trattato dei mali venerei di Andr. Vacca Berlinghieri, publicato in Francese da P. P. Alyon, e tradotta in Italiano da Niccola Rasis di Cefalonia etc. Pisa,* 1802. The anatomical work of Caldani will be continued, and young Caldani has made a series of experiments on the structure of the bones, the results of which are contrary to those of professor Scarpa There are at present two Medical Journals publishing in Italy, one of which is conducted by Dr. Giannini in Milan; it is entitled "Memorie di Medicina," and has appeared as far as No. xvi. The second is the "Annali di Medicina," by Dr. Rasori, of which three numbers have made their appearance. The "Atti di Siena," as also the "Memorie della societa Italiana" are continued, and contain, with the Nuovo Giornale dei literati di Pisa, medical objects and treatises. *Summae plantarum a Fulgentio Vitmann in lucem editæ, anno* 1789. *Supplement.* T. i. and Instituzioni Botaniche, del Dottore Ottaviano Targioni Tozzetti, seconda edizione, Firenze, 1802, are the only botanical works to be noticed, Felice Fontana is preparing a large work on Physiology,

and

and Scarpa a work on aneurisms and distorted limbs. Dr. Tommassini has edited "*Lezioni critiche di Fisiologia e Patologia, del Dott. Giacomo Tommassini,*" and Giuseppe Torop *Instituzioni di Medicina forens.*

A Case *of* diseased Kidnies, *communicated by Dr.* Dow, *late of New Orleans.*

A Person of a very sanguine temperament had been subject from his youth to frequent fits of giddines, occasioned by the afflux of blood to the brain. These attacks returning oftener, and with increased severity, at last became true suffusions of blood, accompanied with a sense of suffocation, redness in the face, and violent head-ach, so as to excite the apprehension of sanguineous apoplexy. In this situation he consulted a medical practitioner, who advised bleeding, which was performed immediately; and the patient found so much relief from it, that he afterwards constantly had recourse to the same operation whenever he felt the slightest head-ach or giddiness, without previously taking any medical advice to regulate the use of a remedy which is so extremely hazardous when carried to excess or ill employed.

This practice continued till he was about forty-two or three years old, without being followed by any serious ill consequence; only the fits of giddiness now became so frequent, that he was in the habit of being blooded sometimes twice or even thrice every month. At this time however he first began to remark that he was growing thin without any apparent cause, and he consulted his physician on the subject, who advised him to discontinue to lose blood, and to supply the place of this habitual evacuation by a liberal use of diluents, refrigerants, and a very guarded diet. The patient however neglected this advice, and still had recourse to blood-letting whenever he found it attended with temporary relief.

When he had reached the age of forty-five, several glandular enlargements appeared on the left side of the neck, and under the arm-pit on this side, at the same time that his emaciation increased, which symptoms began to alarm him so that he consulted several physicians separately, all of whom forbade the further use of bleeding, to

to which they chiefly ascribed the disorders that had shewn themselves for some years past. The patient seemed to be determined to follow their advice, but at intervals he s[illegible] continued his former fatal remedy; though he had been forewarned that it would infallibly bring him to his grave.

Some time after the above-mentioned period, the patient began to feel very severe pain in both hypochondria, particularly the left, and in the hypogastric region; at the same time he was attacked by a bilious fever, from which he was recovering with difficulty, when an empiric, who had gained his confidence, gave him so strong a dose of nitre, that it occasioned a violent fit of vomiting, together with intolerable pain in both hypochondria. Two hours afterwards a discharge of blood took place from the urethra, upon which the pain in the region of the kidnies ceased, but the bladder filled with coagulated blood, whilst the lower part of the abdomen became swelled and painful, and remained in this state till all the blood, extravasated into the bladder had come away in the form of long clots through the natural passage.

From this period the patient's health began gradually to decline, the mesenteric glands became obstructed, and, of course, the lacteals were unable to perform their office; the consequences of which were imperfect nutrition, and daily increasing emaciation. From this time also the hæmorrhagy from the kidnies returned with such frequency, that scarcely a month passed without two or more such accidents. He consulted several physicians, all of whom were agreed as to the diagnostic of the complaint, and the unfavourable prognostic which it afforded. It appeared to them evident that the frequent abuse of venæsection had insensibly deprived the blood of its balsamic part, that the lymph had thickened and stagnated in many of the glands, particularly those of the mesentery; that both the kidnies partook of the general obstruction, and that the pelvis of one, or perhaps both of them, contained some varicose veins, the frequent rupture of which was the cause of the hæmorrhagy above described. In consequence of this opinion, they only advised some general palliative remedies, giving up the hope of a radical cure.

The patient conformed to their prescription, but the frequent returns of the hæmorrhagy, together with some domestic uneasiness, so rapidly increased the disorder, and diminished the strength of the sufferer, that he was fast approaching to that state of emaciation and obstruction which

which constitutes compleat marasmus; when both the hæmorrhagy and pain in the loins suddenly ceased.

This instant change gave the patient hopes of an immediate cure, and he began to form schemes of life, relying on an approaching state of good health; but this sudden amendment did not alter the opinion of the physician who then attended him; and the patient himself soon saw his illusive hopes disappear, when the pains returned with more violence than ever, in the glands of the neck and of the axilla, and in the arm on the same side, accompanied with such a sense of weight in the left thigh and leg, that they could hardly support the body in walking. Under these circumstances, he strongly importuned his physician to allow him to undergo a compleat course of mercury, believing that the cause of his complicated disorder might be some remains of a venereal taint in his constitution. This however the physician constantly opposed, as he could not perceive any indication of syphilis, and was apprehensive that the mercury, penetrating into several of the obstructed and schirrous glands, might dispose them to suppuration, and thus shorten the life of his patient.

However, the patient, strongly prepossessed with the opinion that nothing but mercury could save him, and importuned by his supposed friends, now put himself under the care of a young man, able in theory, but a bad practitioner; who, in the hopes of making a brilliant cure where his seniors had failed, entered into all the wishes of the sufferer, discovered several supposed symptoms of lues, took for venereal buboes all the indurated glands with which the patient's body was almost covered, and promised him a perfect cure; telling him, that if he had been called three months sooner, it would already have been compleated. He therefore, after due preparation, prescribed the compleat mercurial course, after the manner of M. Petit. The mercury, acting with violence on so dibilitated a subject, brought on such a severe salivation as to throw the patient into the last stage of marasmus; and even after this course had been discontinued, the pains returned with more frequency and acuteness; other glands became obstructed, and the patient could no longer forbear to complain to the young man of his mode of treatment. The latter replied that the spring, which was then approaching, was a more favourable season for cure than the winter, and proposed with confidence an immediate preparation for a second course of mercury, which, he said, could

could not fail of success. The patient rejected this proposal with a degree of horror, dismissed the young man, and a week afterwards died suddenly.

The young man, to justify his practice, and, as he said, to prove the ignorance of those who had blamed his conduct, requested and obtained permission of the relations of the deceased to open the body. This was done in presence of the king's physician, and of the practitioner who had previously had the treatment of the case, who declared his opinion, before dissection, that the mesentery would be entirely obstructed, the kidnies in the same state, and perhaps suppurated.

The lungs were first examined; they were found rather turgid in their upper part, and contained some tubercles which had acquired a stony hardness. In the abdomen, the stomach and intestinal canal were found almost in a healthy state, only in a slight degree inflamed, the effect of the last moments of the deceased. The liver, the spleen, and the pancreas had undergone no alteration; the latter was raised much higher and more forward than its natural position, by a very bulky tumour situated beneath, the nature of which was not immediately understood, but, on careful examination, was found to be the left renal capsule, which had grown to a prodigious size and a very remarkable form. It covered, as usual, the upper part of the left kidney, rose above the middle of the spleen, then bent downwards towards the vertebral column, formed below the pancreas a kind of large bladder, twice as large as a turkey's egg, and at last became undistinguishably mixed with, and lost in, the mesenteric glands. It contained about a quart of a fluid, part of which was perfectly liquid, and the remainder nearly of the consistence and colour of wine lees.

The left kidney had enlarged to the size of a full grown cocoa nut, and was converted into a shapeless schirrous mass, so that it was only from its situation that it could be made out to be this viscus. Its pelvis was found entirely filled with an ill-conditioned pus, the sources of which were the infundibula of this cavity. No vestige of the emulgent vessels or of the ureter could be detected; every thing was confounded in one disorganized mass, in which the functions of this viscus had entirely ceased.

The right kidney had preserved its form, natural position, and texture; its bulk had increased about one-third, its pelvis contained urine, and the ureter, which was dilated and double its usual diameter, terminated in the bladder without any deviation. This enlargement of the kidney

ney and ureter of the right side was owing to the disorganization of those on the opposite side, whose functions it had therefore to perform.

The right renal capsule had retained its natural situation, but had increased to the size of a turkey's egg. It contained a fluid similar to that of the left side.

The mesentery was in a state of general obstruction; all the glands were enlarged, from the size of a pea to that of a hen's egg, and the quantity of them was so great as to compress all the lacteals, and thus to prevent the absorption of nutritive fluid from the intestines.

The bladder was in every respect natural and healthy.

From this examination it appeared certain that no human assistance could have removed the disease, and that it was with reason that the patient had been advised to resort only to palliative remedies.

The above case likewise shews the danger attending a too frequent use of blood-letting, and the mischief to be apprehended from mercury, when symptoms similar to those above related have been brought on, either by the abuse of venæsection or by spontaneous hæmorrhagy.

To the Editors of the Medical and Phyſical Journal.

Gentlemen,

NOT a page of your useful Journal should be misemployed, in giving place to any animadversions from me, on the attack which your "Constant Reader" has made in your last Number (p. 362) on my mode of treating Gout, did it not derive some claim to notice, both from your having admitted it into your publication, and from the discouraging impression it may possibly make on the timid and the prejudiced.

It must be readily perceived, that the communication breathes a spirit of levity and wrangling, wholly inconsistent with the grave decorum due to the investigation and decision of a philosophical subject; nor does the veil of anonymous concealment, which the author has thought fit to assume, impart to the statement the genuine stamp of unquestionable authenticity.

Hearsay reports are not legitimate documents for determining the merits of a scientific inquiry. What principle in

in either physics or morals would be secure, if assailable by the detracting insinuations of adverse and unsubstantiated rumour?

The names of Harvey and Gregory are adduced to [illegible] credit a practice which their superior intelligence led them to adopt in their own cases. Could a stronger proof be given of the firm persuasion they had of its salutary powers? Nor is the supposed shade of the narrative its gloomy part, for it is not pretended that either of these eminent men ever repented what they had done, or in any degree disparaged its beneficial efficacy. If trembling spectators, and commentators, like your "Constant Reader," should imagine dangers where none exist, and assign causes for deaths which not even a *casual co-incidence* of circumstances fully warrants, such groundless dread ought not to repress a humane endeavour to inculcate a rational mode of curing an hitherto untractable malady. It has never been my object to assume credit for either originality, or peculiarity, in reducing the morbid excess of temperature in arthritic affection by diminished heat. It is impossible the principle should have escaped the earliest reasoning on the subject. The principle of the practice may therefore be rather considered as *common* to human intelligence than *peculiar* to any individual. The doctrine of distempered heat at once pervades, and constitutes the most intelligent and instructive parts of Hippocrates's writings. The medical principles and practice of Sydenham also, founded on temperature, formed a transcendant epoch in the history of curative medicine; and happily for mankind, finally overthrew the fatal delusions of humoral pathology, and alexipharmic jargon. Conducted then by analogy, it occurred to me as highly reasonable, that Gout, distinguished like other inflammations by excessive heat, and marked by no essential difference, might be subdued in a similar manner. This persuasion induced me to assimilate the treatment. Not a single fact had previously reached my knowledge to authorize the trial; though, undoubtedly, many were extant. To me therefore the practice was relatively, though not absolutely original. The only claim to orignality which seems to exist in my right, and the only one which deserves a moment's solicitude to establish, is that of publicly recommending the practice, after having experienced its salutary effects in numerous instances, in which the treatment was conducted with such disguise and secrecy, as were necessary to obviate the prohibitive influence of prevailing prejudices against it.

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In my estimation, nothing can be more degradingly futile, or ridiculously absurd, than captiously cavilling at a fair attempt to be useful, or to deny merit to those who, at all risks, aim at a practical improvement by patient experiment, and respectful publication of the result.

Your Correspondent, Mr. Wadd,* has my implicit credit in averring his long familiarity with the topical use of cold water in the cure of Gout; but how is his zeal for the improvement of the healing art to be appreciated, if confident of the salutary powers of reduced temperature in that disorder, he did not boldly adopt it in his private practice, and recommend it to public attention?

He says, he could never prevail on any patient to submit to the treatment. It was not likely that he should. What patient will accede to a proposed remedy, that has the reputation of being *certainly* pernicious?

The efficacy of the treatment might have been subjected to the test of experiment, without alarming existing prejudices. Indeed, it should be an invariable rule, in investigating the effects of a new remedy, cautiously to conceal the nature and object of the trial, to prevent its specific operation being disguised by the influence of imagination.

Since my last communication on the cure of Arthritis, the previous stock of my experience has received considerable addition from correspondents, bearing the strongest testimony to the speedy, safe, and effectual remedy, afforded to Gout, by the application of cold water. One case has also since occurred in my own practice, more violently, extensively, and critically circumstanced, than any former instance in my observation; in which, the incessant employ of cold water, partly by bathing, and partly by keeping the affected joints enveloped with cloths wetted in that fluid, completely extinguished the arthritic temperature, and restored the inflamed parts to perfect ease, and tolerable motion, in the course of three days. Friction has since fully renovated the motive power.

Firmly convinced of the inestimable benefit that will accrue to mankind from a *liberal* investigation of the curative power of topical cold to arthritic inflammation, the Medical Faculty will excuse my again soliciting the earliest intelligence of their experience on the subject, that an opportunity may soon be afforded me of presenting the public with such information, as will unequivocally prove Gout,

* See Medical and Physical Journal, No. XLIX. p. 205.

Gout, like all other descriptions of inflammation, to be a disease of *excessive temperature*, and agreeably to an evident law of nature, most appropriately, promptly, and efficaciously remediable, by *diminished heat*. Time will elucidate and confirm this opinion.

Magna est veritas, et prævalebit.

I am, &c.

Taunton,
April 9, 1803.

ROBERT KINGLAKE.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

THE inferences deduced from the late striking experiments in Galvanism, and inserted in your valuable Journal for last month, induce me to take the liberty of offering a few remarks, which, if deemed worthy of insertion, are much at your service.

I am, &c.

162, *Bond Street,*
April 10, 1803.

WILLIAM HUTCHINS.

ACTUAL experiments, and the facts resulting therefrom, being the only certain means of arriving at a knowledge of the operations of Nature, whether as to their causes, effects, combinations, affinities, or other attendant phenomena, it is of the utmost importance that all deductions drawn from them should be stated, and transmitted to the public with precision and accuracy, whatever theoretical conclusions may arise from investigating and comparing the results: it is from this consideration solely that I presume to trouble you with the following observations, founded on experiments which I have had the honour of attesting, and supported by those I have frequently repeated.

The third inference states, "Not only were the muscles, but the skin and cellular membrane, excited by the Galvanic stimulus." In the experiments alluded to, neither the cellular membrane, cutis, nor moist cuticle, have ever exhibited any evident excitement when the Galvanic arc has been applied to them; they appear to be merely passive

 conductors,

conductors, by which property* they convey the Galvanic stimulus to the muscular fibres, in which *alone* excitement is manifested; this is amply corroborated by the experiment of Professor Aldini, where the application of the arc from the spinal marrow to the cellular membrane and cutis, produced powerful contractions in the adjacent muscles.

Under the fourth head it is said, "The contractions of the muscles were excited by the metallic arc, applied to the nerves supplying the muscles; but the nerves themselves were not affected."

Without in the least presuming to appreciate the merit of any set of opinions, may not I be permitted to observe, that late experiments render it doubtful whether the Galvanic impulse is decidedly propagated along the nervous fibres to the muscles they supply, or whether that impulse is conducted merely by the surrounding animal moisture? The experiments of Professor Aldini (several of which were instituted expressly to determine this point) uniformly tend to confirm the latter opinion, particularly experiment twelfth, published in his pamplet, where he observes to his astonishment, that "the Galvanic arc being established from the spinal marrow to the sciatic nerve, divested of its theca, no contraction whatever ensued in the muscles: but the conductors being made to communicate with the fibres of the muscles and cellular membrane, as strong an action as before was manifested." I beg leave here to notice, that in dissecting as much as possible of the theca from the nerve, we also deprive it of a great part of its natural moisture; hence it appears to admit of a question, whether the difference in the action produced in the above experiments is not attributable to the defect or abundance of the animal fluid? Though I shall by no means pretend to decide this question, yet, I feel myself prompted to the suggestion, because I have always found that muscular contractions were excited by the communication of the Galvanic arc, either from nerves to muscles *not* organically united: (so far as anatomy authorises the expression) or from the lungs, cellular membrane, or other moist part, to muscles, or even from one muscle to another, where all organical connection was destroyed by the total excision of both from the body, and nothing but moisture allowed to intervene; and further, because I have never been able to obtain positive results where the circle of communica-

* Dependent perhaps on their lubricating fluid.

tion

tion of the Galvanic arc was interrupted by any kind of *dried* animal matter, as bone, nerve, muscle, skin, &c. As most of the experiments demonstrative of the above observations have been publicly displayed in the presence of persons of the most distinguished eminence, they are permanently secured from any imputation that might attach to solitary evidence or premature decision.

Respecting the sixth statement, viz. "That a milky or coagulated matter was formed by repeated contractions of the muscle in contact with the copper wire;"

It is well known, that when water, most animal secreted fluids, saline solutions, &c. are placed in the Galvanic circle, they appear to be decompounded, and a quantity of gas is extricated. In the case before us, upon applying the arc to the muscle, cellular membrane, &c. covered with their natural fluid, or wetted with a solution of muriat of soda, a milky appearance was produced, not from any coagulated matter formed by the contraction of the muscles, for it did not manifest itself till near the conclusion of the series of experiments, when the excitability of the muscles was nearly exhausted, and continued to be generated after all motion had ceased, as long as we continued the application. This phenomenon certainly at first seemed to arise from some peculiar state of the animal matter, induced by the impluse applied; but precisely the same effect occurs, if any of the conducting fluids, as saline solutions, &c. are placed in the circle of communication of the pile, without any animal matter whatever; and the milkiness is caused by the rapid decomposition of the fluid and extrication of gas which rises, forming a white froth or effervesence on the surface.

I come next to consider the seventh and last head, in which it is expressed, that "When the parts ceased to give out motion, the motion was renewed with augmented force, by wetting them with a solution of sal ammoniac."

In Professor Aldini's experiments, as is fairly stated in his Essay, the convulsions of the muscles were increased by the caustic volatile alkali being administered in combination with Galvanism; but the Professor does not mention, nor have I ever known, any instance where the excitability to the Galvanic impulse became in the slightest degree renovated or reproduced (by the application of either caustic, ammonia, or any other known stimulus) after the Galvanic battery of Volta had ceased to excite motion in the muscular fibres; nevertheless, such a stimulus may exist, with which I am however totally unacquainted.

 P. S. Seeing

P. S. Seeing a further account of Professor Aldini's Galvanic experiments in your Journal of the present month, (April) I beg leave to add, that the fluid interposed between the metallic strata in the three troughs was, a *saturated solution of muriat of ammonia*; also, that by mistake of the printer of the Professor's pamphlet, and copied in your work, a considerable misstatement has arisen by the insertion of the word, *no*, instead of, *a very*, in the recital of the elventh experiment, which, according to fact, and agreeable to the manuscript, ought to run thus, "Experiment the eleventh. Conductors being applied from the spinal marrow to the fibres of the *biceps flexor cubiti, glutæus maximus* and the *gastrocnemius*, separately, *a very* considerable action in the muscles of the arm and leg was produced.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

IN your last Number (50) I perceive a letter signed William Henry, dated Manchester, March 13, 1803, in which my name is introduced in a most extraordinary manner. I cannot help thinking such a subject was foreign to the nature of your Journal.

About the time I quitted my station in the fleet, Mr. Complin, chemist, in Bishopsgate-street, gave me a specimen of his preparation of the acetous acid. I thought well of it; and should have been glad to see it introduced into the naval department, and *officially* authorized him to make use of my name, if it could do him a service; a return which I considered justly due to his attention. Mr. Complin, it appears, availed himself of this permission, and my recommendation accompanies his advertisement.

Mr. Henry soon after sent me a bottle of his *Aromatic Vinegar*, and another half full of Mr. Complin's, to show the superiority of his over the other. This specimen of Mr. Complin's was certainly very inferior to what I had seen before. In his letter he informs me, that he could not think I meant to defend the chemical opinions I had given on Mr. Complin's vinegar. I certainly did not, and gave my name solely with a view to serve an industrious man, and to thank him for his civility to public service.

Mr.

Mr. W. Henry *peevishly* complains that I had made no reply to his father's letter. In the introduction to the third vol. of the Med. Nautica, which you have kindly inserted into your Journal, I have made an ample *apology* for all applications of this nature on me as an individual. I have been taxed and burthened with correspondence, and found the necessity of giving it up.

I am not conscious of having invaded any of Mr. Henry's rights, as I was totally ignorant of any exclusive priviledge he could claim on the subject. Many applications, similar to Mr. Complin's, have been made to me as physician of the fleet, and I have uniformly acted as a servant of public service: the *duties of office* to the sick-bed of the brave man have been paramount to all other considerations.

But my chief inducement for replying to Mr. Henry's letter, is to assure your readers that I have had *no fellow-feeling* in transactions of this kind. I *solemnly* declare to the medical world, that the only bribe I ever took was a bag of green peas from a contractor of vegetables, which was carried immediately to a flag officer of the fleet. And my friends here will vouch, that I have not leaped into a splendid carriage and retinue at the expence of my country, after more than twenty years' service.

I am, &c.

Newcastle,
April 5, 1803.

T. TROTTER.

To the Editors of the Medical and Physical Journal.

Gentlemen,

As cases of supposed Infanticide frequently occur, I beg leave to call the attention of your readers to Dr. William Hunter's excellent paper on that subject, in the 6th volume of the "Medical Observations and Inquiries." As the work, from its contents, is not likely to be in the hands of the generality of readers, and is now rather scarce, it is sincerely to be wished that this paper on the *Uncertainty of the signs of murder in the case of bastard children*, were republished by itself, as it clearly and satifactorily proves that the commonly supposed signs of murder in those cases, such as swimming of the lungs, blackness in the face, &c. &c. are so very fallacious and uncertain, that not the

the least dependence can be placed upon them, and that they are frequently found to arise from other causes. With respect to the concealment of a still-born child, or one which dies soon after birth (which frequently happens) in an unmarried woman, it cannot but be allowed to be highly natural, as it arises from an unconquerable sense of shame, from a desire to preserve her character, and from want of resolution to meet and avow infamy.

W. R.

To Dr. JENNER.

DEAR SIR,

WHATEVER regards the progress of your discovery cannot be uninteresting to you; I remember the pleasure you expressed to me about four years ago, when I wrote to you that I had spread it beyond your island; I think myself bound in duty to procure to you nearly a similar pleasure by informing you of its arrival in the East India settlements, which has been effectuated by my means. You already know of its adoption at Constantinople; next to that famous town, I sent it to Bagdad, where it succeeded perfectly under the direction of Dr. Short, an English physician, attached to Mr. Harford Jones, British Resident at the court of His Highness the Pacha of Bagdad. From Bagdad it was sent to Bussora, where it likewise succeeded very well under the direction of Mr. Milne, an English surgeon, attached to Mr. Manetty, the British Consul. These four gentlemen have been exceedingly active in sending matter to several parts of Asia, and their correspondence with me on the subject contains a great number of interesting documents which will be a valuable addition to the history of your discovery.

From the first moment at which you made it known to the world, every ship bound to India was provided with vaccine matter, under every imaginable form; however, though innumerable trials were made by various practitioners, some of whom were acquainted with the practice, whilst in Europe, it never produced any effect. According to a very interesting account published in the Bombay Courier, July 3, 1802, by Drs. Moir and Scott, Members of the Medical Board at Bombay, and which has been transmitted to me in the original by the British Embassy at Constan-

Constantinople, the first vaccine pustule produced in the eastern world, (Bagdad and Bussora excepted) has been upon a black child, daughter of a servant of Capt. Hardie. Drs. Moir and Scott, describe in a lively manner the satisfaction which the whole town of Bombay expressed when they saw themselves in possession of that happy preventive; they speak of the encouragement which they experience from the government of that presidency, and mention some excellent measures they are taking to spread it rapidly into all the English settlements, even their hope of forwarding it to China. They are kind enough to make a very flattering mention of the efforts I have made to introduce the vaccination into the East, they take their principal instructions from my work on the subject, and they have taken much pains to explain to the Indoos and Parsees, who shew a great desire to have their children vaccinated, all the precautions necessary for acting with safety and certainty. The whole case of Count Mottet, so famous in the annals of the Cow-pox, has been well explained to the Asiatic practitioners into whose hands vaccine matter has been put. In short, the whole account is well written, and if you can get that newspaper, you will really find it worth your reading. How can one account for such a constant want of success with matter sent by sea, whilst that sent by land has succeeded immediately? Do you believe that the effluvia of tar, so strong in ships, or the sea air, has been the cause of it? It cannot be attributed to the heat of that latitude, for certainly it must be rather more intense at land. You know better than any body how delicate is the nature of vaccine matter. I have made some observations tending to prove that strong smells diminish its activity, particularly that of musk. Though I really regretted to see the vaccination adopted so late in the East Indies, I have felt a lively satisfaction in the idea of having been instrumental to its first introduction not only on the continent of Europe but on that of Asia. I shall besides observe, that it is a singular circumstance that the vaccine matter which I originally sent to Bagdad, and which has propagated itself so widely, was the product of the first experiment I made with the Cisalpine matter of Dr. Sacco; so you see that Great Britain has supplied the West, and Italy the East.

I congratulate you with all my heart for the decisive confirmation which your ingenious theory upon the origin of the Cow-pox has received from Dr. Loy's experiments. I found them so very important that I have given a French and German

German translation of his pamphlet, to which I have added some explanatory and introductory observations, and fragments of your correspondence, treating particularly on the subject. This little work has roused the attention of the continental physicians to the connection existing between the grease and the Cow-pox, and I do not doubt but what it will produce a great variety of new and interesting experiments. I do not remember whether I have already communicated to you an hypothesis which I began to form when I read your first work, but which seems to have acquired a certain degree of plausibility by Dr. Loy's experiments. I suppose that Asia being the cradle of the Small-pox as well as of Inoculation, it is not impossible that that scourge of mankind may have originated from that sort of cohabitation which many wandering nations of the East are said to have with their horses, which they have almost associated to their own existence. Could it not be possible that under some particular circumstances of climate, feeding, &c. the grease of those horses may have produced that variety which we know under the name of Small-pox. The connection between the grease, the cow-pox, and the small-pox cannot be denied; the grease must be the source of both, but where begins the variety, and what are the circumstances which favor its eruption, that is what merits some exact researches. We see, according to Dr. Loy, two sorts of grease, an eruptive and a local one. Has not perhaps the eruptive grease, communicated accidentally, been the cause of the variety *Small-pox*. How many diseases do we not know whose nature changes, which appear and disappear? Is not very often the same disease subject to varieties which have scarcely any resemblance? What a prodigious difference do we not perceive between a confluent Small-pox and the effects of inoculation; or even of natural infection producing but a few discrete pustules? Such changes may have taken place from the moment the original greasy virus was taken from the heels of horses. I consider this theory merely as an hypothesis, but I have amused myself to send a plan of researches to all physicians of the East with whom I correspond on the subject of Vaccination. The principal points of it are, to make enquiries whether the grease and the cow-pox are known in Asia? Whether any connection is supposed to exist among these two diseases of two different animals? Whether any mention of any of them is to be found in Asiatic, particularly veterinary physicians (if such exist)? In case the grease should be known in Asia, whether any documents

cuments prove that it was known before the appearance of the Small-pox, or whether they are coeval? In short, I have suggested various such ideas which can at least give occasion to many researches, perhaps foreign to the subject I look for, but not less interesting. I even took occasion of a correspondence which I have begun, by means of the British Envoy here, with the Governor-general of the East Indies on the subject of Vaccination, to desire him to order his Medical Board to make every sort of research which can throw any light on that part of your theory, and to send me all the documents concerning it.

You may have perceived, by the contents of the XIth. chapter of my work, second edition, that I rather inclined to consider the two diseases, the Cow-pox and the Small-pox, as a different species, or rather genus, without denying their analogy. You must, however, observe, that I rather paid attention to the external symptoms than to the nature of the disease itself, which I considered as too delicate a point to determine hitherto; but, as I said above, Dr. Loy's experiments have altered very much my opinion on the dissemblance of the two diseases. I have, besides, just now, a case which has made a strong impression upon me. I never saw as yet true vaccine pustules on any part of the body, but in a very few cases, where a sort of accidental vaccination could be supposed between the arm and the parts where they singly appeared. Last year, however, I saw a child attacked with what the French called *dartres*, and what you call, I believe, *tetters*; they were sore and much irritated when I vaccinated it; the pustules of the arms went on their regular course, but the sore spots of the elbow, shoulders, and back, were soon covered with large charateristic vaccine pustules, the fever was high, and ceased as soon as the black crusts began to form. Those crusts fell, and we had the pleasure to see the child's skin perfectly clean, free from the preceding eruption, and it has not appeared since. On last New-year's day I vaccinated the child of a physician, which had, for several months, a very abundant eruption of *crusta lactea* all over his face. As I had vaccinated several subjects under that eruption before, I did not hesitate to do the same. The vaccine pustule appeared regularly, but, on the 12th day, a most copious eruption of true vaccine pustules took place on the whole face, on a part of the back, where a blister had been kept open on account of the milk crust, and on tke scrotum, which happened to be slightly excoriated by the urine; the other parts of the body, where the skin was sound,

sound, remained free from pustules. But, gradually, the face and the whole head swelled so much, that the eyes were closed during six days; I was very uneasy about them, and desired to call our excellent oculist, Dr. Beer, to examine them. He prescribed a dry fomentation with sacs of aromatic herbs and camphor, and, as collyrium, a weak solution of corrosve sublimate with some drops of laudanum. Luckily the eyes were opened on the sixth day, and were found perfectly sound. You may easily believe what a dreadful stroke it would have given to the vaccination, had an instance of blindness been put in its annals. I am very impatient to know whether the child will lose its former eruption on the falling of the vaccine black crust. The smell was precisely the same as that of the Small-pox; the appearance of the child's head was precisely that of a confluent Small-pox; the vaccine appearance, the depression in the centre, were, however, very distinct on the edges of the face, where some pustules were quite insulated. The mother and a very careful nurse are uncertain of their having had the Small-pox, but have stronger reason to suppose that they have not. Both of them have alternately carried the child day and night, its face resting on theirs. The mother has vaccinated herself on the temple and on the wrist, and the nurse on seven or eight places of her face; those pustules have actually the most regular appearance; I have taken matter from the mother's face and hand. This case is certainly very instructive; it shews the resemblance which the Cow-pox and the Small-pox can have under certain circumstances. I shall draw an important practical conclusion from it, viz. that no eruption should prevent vaccination, except when it is in the neighbourhood of the eyes.

The vaccination of sheep, in order to preserve them against the rot *(claveleé)* has engaged the attention of several gentlemen, proprietors of sheep farms. An experiment, on a very large scale, was instituted last summer in Hungaria; but, though it was made by the Professor of our Veterinary School, Dr. Pessina, a very learned and experienced veterinary physician, he never was able to produce on sheep or lambs any vaccine pustules. He had then recourse to the inoculation of the rot itself, and found there is the same proportion between the inoculated and the accidental rot as between the inoculated and the natural Small-pox. No sheep died, and they have all resisted it since the infection. I have myself lately made an excursion in Moravia with Baron Braun, proprietor of one

one of the largest estates in this monarchy, in order to examine the state of his flocks attacked with the rot. The mortality was considerable, but, by a timely inoculation, (which I call in French *clavelisation, claveliser, &c.*) he has not lost any more. I never saw such a dreadful disease as the rot, it really gave me an idea of the plague; when it is of the bad kind, the sheep lose their eyes, their wool falls, the skin bursts and makes zig-zags, their nostrils are so much filled with a fetid matter, that the shepherds are obliged to syringe constantly with an infusion of elderberry flowers in order to prevent suffocation. The bad sort never produces distinct pustules from which matter can be taken for inoculation; it is only the benign sort, where they are distinct and contain fluid matter. Every pustule leaves a mark, and the wool never grows again; though I never saw that disease but once in my life, I was, as well as the oldest shepherds, able to say which sheep had already undergone the disease or not. The sick were separated from the healthy, just like cavalry regiments in a camp, the less sick from the incurable. In short, I saw plainly that the cure of the rot, or rather its prevention, must be a most important object of rural economy.

Our intention was to make some experiments upon the vaccination of sheep. We had brought a vaccinated child from Vienna, from which I took matter for six healthy sheep which I vaccinated myself. According to the journals of two very intelligent persons, whom we left there to examine the growth of the pustules, and to compare them daily with those of sixteen children which I vaccinated there, nothing was produced but local little sores. The sheep however were thrown amongst the sick, and two of them have, as could be expected, contracted the rot. Therefore little hope can be entertained of the vaccine being a preventive against it; but it appears to me sufficiently proved that *clavelisation* must be introduced in all sheep farms. I have, as you know, long ago proposed to make of the vaccination a sort of church regulation attending christening, but the clergy have been deaf to my proposal; as sheep are not christened, I hope that clavelisation will more easily be adopted, and that it will be the first operation they shall have to undergo after their birth. Has any thing been done in that respect in England?

I have taken the trouble of perusing a great number of books on the diseases of sheep, but I have found them upon the whole little instructive, and containing nothing more than empiric notions. I found, for instance, that many farmers

farmers believe that the rot is not an original disease of sheep but the effect of the contagion of a certain eruptive disease to which hares are subject; they say that it is particularly frequent in farms where hares are in great quantity, and tame enough to play amongst the sheep. Have you any notion of that connection? enquire amongst your farmers. I would scarcely mention such a notion which is not supported by facts to any body else but to you; though I always was of opinion that popular traditions should not be blindly adopted, I always thought likewise that they should not be quite despised. The history of your discovery is such a striking proof of that principle that I venture to fix your attention upon the supposed connection between the eruption to which hares are subject and the rot of sheep. I believe besides that it would not be impossible to make experiments to determine whether the fact is grounded or not; could not one catch hares alive with nets, and inoculate to sheep any eruptive disease that should be observed on those animals?

Though I know very well how much your time is employed, can I flatter myself that you will answer this letter; I cannot have a greater pleasure than to receive one from you. You have a great many admirers, but surely none like me. God bless you.

Vienna, Jan. 22. 1803. J. DE CARRO, M.D.

P.S. I have introduced the vaccination at Salonica, and received from M. Lafont, a French physician, some very curious observations. He vaccinated in that town, where the plague has reigned almost constantly these six years, the son of the English Consul, who was the first upon whom he tried vaccination; he has been exposed to the plague in his father's house, where it carried off two servants; the child had symptoms which were declared by the most experienced people to whom the treatment of the plague is entrusted, (for you know that physicians are seldom called) to be those peculiar to that dreadful disease; a crisis took place, the child recovered. M. Lafont, who appears by his letters to be a well informed physician, is far from concluding that the Cow-pox is a preventive against the plague; but this case has roused his curiosity, and he proposes giving a particular attention to this circumstance. I do not remember where I have read that people who had undergone the Small-pox were less susceptible of catching the plague. I am curious to hear farther from M. Lafont, and if his correspondence affords any interesting observations,

I shall

I shall not neglect to communicate them to you. His first successful operation was performed with my ivory lancets. Not remembering whether I sent to you one, I include an impregnated one, from the pustule on the mother's face, accidentally vaccinated.

EXTRACT *of a* LETTER *from* MR. CHRISTIE, *Chief of the Medical Staff, at Ceylon, to* SIR WALTER FARQUHAR, *Bart.*

MY DEAR SIR,

IN a former letter I mentioned to you the failure with the Vaccine matter my brother sent me, by your direction; but I am extremely happy to say, that by successive inoculations at Constantinople, Bagdad, Bussorah, and Bombay, the Cow-Pox has, at length, been introduced into India, and that we have been uncommonly successful in extending it throughout Ceylon, where it will prove the greatest of all possible blessings, as great numbers were annually swept away on this island by that exterminating malady the Small-pox, which was here particularly malignant, and consequently dreaded as the plague.

In addition to the ravages actually committed by the disease itself in the population of the country, whole villages were often destroyed in consequence of its appearance only, as it was by no means uncommon in the more remote parts of the country, for the whole of the inhabitants of a village, to desert their homes on the first appearance of the Small-pox, fly into the jungle, and leave to their fate their unfortunate relations and friends who chanced to be infected; and these, if they escaped the dire attacks of this dreadful distemper, too often fell victims to want, or to their no less relentless enemies the savage wild beasts, which abound in the unfrequented parts of this island.

In September, 1800, I was witness to a most distressing scene of this kind, in the neighbourhood of Ballicaloa, on the eastern side of the island. The Small-pox had broke out suddenly in the village of Enore, about the middle of July, and so great was the panic occasioned amongst the inhabitants, that all those in health immediately deserted their habitations, and left the helpless sick without any assistance whatever.

When I visited the village on the 4th of September, the infection had ceased, and the inhabitants were beginning to return to their usual residence, (once a flourishing village) but which they now found desolate and waste, in consequence of their precipitate desertion.

Out of thirteen infected persons, six had died, and seven remained in a miserable emaciated state. These survivors gave me the following melancholy recital, which was too certainly verified by the appearance of the village.

On the departure of the inhabitants in health, the elephants, spotted tigers, and wild boars immediately came down from the jungle, pulled down the fences, rooted up and destroyed the young trees, ate the stores of rice and other provisions, and what is still more horrible, carried off the sick, or at least consumed the bodies of the deceased; for it is certain, that in one house, where three sick persons had been left, not the least vestige of their remains could be found, on the return of the inhabitants to the village.

With a view to obviate these dreadful calamities, and alleviate as much as possible the horrible consequences of that exterminating malady the Small-pox, Mr. North, with that humanity and liberal policy for which he has ever been distinguished and admired, early in 1800, instituted an establishment for the purpose of affording relief to persons afflicted with this dreadful distemper, preventing the extension of the contagion, and promoting, under certain restrictions, the practice of inoculation.

His Excellency did me the honor to place the whole of this establishment under my immediate superintendance, and during two years which it existed, I have the satisfaction to think, that not only a great many lives were saved by the salatury practice of inoculation, but that the natural disease was rendered much less frequent and malignant.

I am aware of the truth of the observation, that although variolous inoculation has been highly beneficial to individuals, yet it has upon the whole perhaps been hurtful to the community, by keeping up a source of contagion. In the present instance, however, inoculation was strictly prohibited, except in the established hospitals, or in those situations where the contagion was very general throughout a village or district; and even in these cases, the houses in which the Small-pox existed, whether from inoculation or natural infection, were ordered to be placed in a strict state of quarantine, during the continuance of the disease.

That

That much may be done in this way, in preventing the communication of infection, and that inoculation may be practised in well regulated hospitals, without much risk of rendering the contagion general, will appear from the fact, that soon after the establishment of this Institution, the Small-pox was banished from some extensive districts; and that although the contagion was constantly kept up in the Inoculation Hospitals, yet that in some of the districts, particularly Galle and Trincomalée, no case of the natural disease occurred in the surrounding country for several months.

This establisment however could only be considered as alleviating the public calamity, for notwithstanding every attention on the part of the medical men, almost one-third of all the cases of natural Small-pox died, and somewhat more than one in a hundred of our inoculated patients.

It was therefore with the greatest impatience and anxiety, that we looked forward to a more certain remedy for the evil by the introduction of the Cow-pox in India; to promote which desirable event, Mr. North left no measures untried. At length, thank God, from a fortunate succession of inoculations at Constantinople, Bagdad, Bussorah, Bombay, and Trincomalée, we are now in possesion of this inestimable blessing, and the benefits derived from it already on this island have been very great.

The disease was first introduced into Ceylon, by the successful inoculation of John Sybelle at Trincomalée, on the 11th of August; and as soon as success was ascertained in this instance, orders were given by government for the prohibition of variolous inoculation, and for the propagation of the Vaccine disease throughout the different stations on the island by means of inoculated patients.

The first patients were inoculated from John Sybelle on the 20th of August, and since that time so rapid has been our success, that from this source the disease has been extended to every station on the island, and upwards of seven thousand people have been inoculated in less than three months.

As I conceive that every thing relating to the introduction of the Cow-pox into India, and its successful propagation in this remote part of the world, must prove interesting to you, who patronized, in the early stage of its introduction, this most important discovery, which in its consequences must prove infinitely more beneficial to mankind than any which history records, I beg leave to inclose some letters on this subject, which have been published in the different papers in India.

 This

This will be delivered to you by Mr. Carnic, a surgeon on the Madras establishment, who has long done duty on Ceylon, and who has promised to take charge of a cinnamon stick, a Talipot umbrella, and a Ceylon ring, containing a specimen of the different precious stones produced on the island. These trifles are of no intrinsic value, but may possibly be acceptable to you as curiosities.

I remain, &c.

Columbo,
Nov. 19, 1802.

THOMAS CHRISTIE.

P. S. The letters from me, addressed to the Governor and to the medical superintendants at Ceylon, were never published; but finding that government have sent them home, as explanatory of the measures adopted for propagating the Cow-pox on this island, I have also enclosed them for your perusal.

To Dr. BRADLEY.

SIR,

A Good deal of communication with medical men about the Influenza, makes me apprehend that the next epidemic of this kind, will find our successors as uncertain in some essential respects as our predecessors have left us. One of the first points of view in which I regard every disorder, is its *prevention*; for, really, the description of the current epidemic is quite easy, and its treatment, upon the whole, a very common place medical problem.

To know how far the Influenza can be prevented, we ought to settle whether it be contagious. In 1782, I think the best and most approved authorities were for the affirmative; and very many practitioners, I know, infer the same now from their observations. On this supposition, acid fumigations bid fair to stop the progress of the complaint, and they have been used in families, without any inconvenience, to preserve the uninfected, though it might not always have been proper to fumigate the apartments of the sick. Their general employment *might* have determined the question concerning infection.

Those who ascribe the epidemic to the atmosphere, I see, rest their opinion upon exceptions. It is therefore of the utmost importance to state the proportions and character of the exceptions; that is, the number of instances where

where only one in a family has suffered, and so on. The greatest care ought also to be taken, not to mistake *Catarrh* for *Influenza*. This can often with difficulty be done. At least many practitioners have said so in their correspondence with me. But the symptoms, together with the inquiry, *whether the patient had been in a situation to catch cold*, would frequently lead to a satisfactory conclusion.—It would also be very desirable to ascertain the number of persons affected, who had been carefully screened from the cold during the severe weather. Such cases were, I believe, quite common here.

Too little attention appears to me to have been paid to the following consideration. Exceptions to infection in measles, scarlatina, &c. are frequent enough even in the case of bed-fellows; and yet few of those who doubt in the case of the Influenza, become sceptical with regard to the contagious nature of the other disorders. One would therefore desire to know, how far the exceptions were more numerous or more remarkable in this epidemic.

I would further propose as a query, *whether the exceptions can be referred to particular ages, &c.* It would be no more extraordinary that the contagion of Inflnenza (supposing it to exist) should be less active on particular classes than the contagion of scarlet fever. By attending to these hints, which might be greatly extended, the Communications of your Correspondents may be more pointed and decisive; for simply to enumerate certain exceptions, comes to nothing. It might be proved in this manner that no disease is contagious.

I am, &c.

Clifton, April 19, 1803. THOMAS BEDDOES.

An OBSERVATION *on the* PARTICULAR CONFORMATION *of a* FOETUS, *which led to some Difficulty to determine its Position in* UTERO; *by Cit.* MULOT, *Surgeon at Rouen.*

WHEN the author first saw the patient, he found her attended by a midwife and a surgeon; the child presented the left arm. The author brought down the inferior extremities with much difficulty; and he perceived *the two great toes* were on the outer side, which induced him to think that he held the feet of two distinct children; but

but on examining which of the two he should first extract, he found that the two members belonged to the same body; he then conceived it probable that the fœtus might be double, or that it might have more than two inferior extremities. When he had passed his fingers somewhat above the pelvis of the child he perceived a large sack filled with water, and which obstructed the passage of the fœtus; he opened this pouch, and the child was born dead without any further difficulty. Some short time before extraction it had given evident marks of life. It appeared, said the author, that this child was not enveloped in its membranes, that the inferior extremities were so changed from their natural position, that the knees were turned towards the sacrum; the pouch, which was opened, covered immediately the intestines; the placenta was very small and the umbilical cord very short. The exterior parts of generation were imperfectly marked, but internally a matrix was to be seen very distinctly.

Feb. 22, 1803.

To the Editors of the Medical and Physical Journal.

GENTLEMEN,

I TAKE the liberty of sending you enclosed an extract of a correspondence between Dr. Jenner and myself, containing some observations on the subject of Vaccine Inoculation, which Dr. Jenner has given me leave to communicate to the Public through your valuable Journal. I feel a particular pleasure in collecting facts and observations from a man who unites to the brilliant claims of discovery, the merit (perhaps still greater) of candid enquiry and indefatigable observation; and I should think myself truly blamable if I did not make the Public participate in remarks coming from such high authority upon so interesting a subject.

London,
April 20, 1803.

I am, &c.
ALEXANDER MARCET.

Extract of a Letter from Dr. JENNER *to Dr.* MARCET, *dated London, Feb.* 23, 1803.

"THE Copenhagen report on the subject of Vaccination is equally satisfactory with that of other countries. Nevertheless

theless it strikes me, that the virus they employ there has probably undergone some change; a change not sufficient to deprive it of those specific qualities which render it capable of destroying in the constitution the susceptibility of the contagion of Small-pox, but yet sufficient to effect some little alteration or derangement in its properties; for it is said in the report, "Those inoculated frequently have eruptions." Now, in this country, out of the vast number I have inoculated (a number in conjunction with my nephews but little short of ten thousand), I neither see nor hear of cases of eruption, except those trifling appearances I have noticed in one of my publications, a kind of rash somewhat resembling that from teething; but even this is very rare. Similar occurrences to those in Denmark, have taken place both in this country and in many others. In Hanover the same thing took place; and in a district in Scotland, I have in two or three instances seen perfect vaccine pustles, one or two upon a subject.

"The origin of this deviation in my opinion is this; the use of the Vaccine fluid, when taken so late from a pustule that it was *begining* to undergo a change, which rendered it incapable of exciting the same effect *precisely* as if it had been taken at an earlier period. The truth of this theory seems to have been exemplified in many instances. There may be every gradation in the degeneracy of the virus from that point where it is capable of simply producing no further change in the pustule subsequently propagated, down to that which produces the compleatly spurious pustule; for it must be remarked, that a pustule in a state of degeneracy will produce another of the same kind. This indeed was exemplified in the case of the Vienna nobleman, on whose arm a spurious pustule was produced, from which a succession of the same kind sprung up at Geneva.

"The same circumstances took place in America in the early days of Vaccination there, before its phænomena were well understood by Professor Waterhouse; and it has happened, I am sorry to say, many times in this country. That one degeneracy will create another we have an instance not uncommon in the purulent pustule. I frequently find when a child has a scabby face, especially if it be accompanied with tinea capitis, or papillous eruptions, that the purest vaccine virus will produce a pustule that will never contain limpid matter, but throughout all its stages its contents will be purulent. If I inoculate from this source, almost to a certaintity I produce a similar pustule:

 the

the scab which succeeds is not hard and dark coloured like the common Vaccine scab, but soft and of an amber colour, like that of the Small-pox, and the whole progress of the disease is accelerated."

Extract of a Letter from Dr. MARCET *to Dr. Jenner, dated London, March* 25, 1803,

"I BEG leave to send you enclosed two little plates of glass, intended for the preservation of Vaccine virus, which appear to me somewhat better adapted to the purpose than any of the means that have hitherto come to my knowledge.

"Glass, in every point of view, seems to be the substance best calculated for the purpose, as it is of all ingredients the least likely to be acted upon by the virus, or to produce by its own agency any chemical alteration whatever. The little bottles in which matter is preserved on an elongated glass stopper, as well as some other ingenious contrivances for the preservation of virus, answer this purpose but imperfectly; and even the small plates of glass which you have brought into use, and which offer by far the simplest as well as the most effectual method that has hitherto been used, cannot be said to exclude the air entirely, since it is obvious, that whenever a foreign body is placed between two polished surfaces, it is impossible that these two surfaces should come into perfect contact.

"The hope of removing such objections, and of reconciling to the use of glass some medical men, who seem to have taken a sort of dislike to it, and whose authority may have a considerable share in framing the general plan of instruction which is at this moment in contemplation, induced me to try whether the means hitherto employed were not susceptible of some further improvement.

"The enclosed plates of about three-quarters of an inch square, are made of pretty thick glass, perfectly flat, and ground rough on one side. In the centre of the rough surface, you will observe a round spot about three-eighths of an inch in diameter, which has been polished afterwards. It results from this disposition, that, when you apply the two rough surfaces to each other, the plates come every where into perfect contact, with the exception of an extremely small space left between the two polished spots; and if a drop of matter be spread between these spots, it is there as effectually preserved from any access of

of air as if the glass was hermetically sealed; and as this drop of virus just fills the space allowed, no sensible quantity of air can either be lodged or penetrate into that space.

"The manner in which the virus is deposited on the glass is nearly this: After a puncture or two have been made in the pustule, and a quantity of fluid allowed to ooze out of it, till it appears in the form of a distinct drop, the plate of glass is gently applied to the pustule, so as to bring the virus in contact with the polished spot above described. The pustule may then be punctured afresh once or twice, and the plate again applied to it, until a drop has been collected on its surface sufficient to fill exactly the small recess allowed for it; and on applying the two plates against each other, the drop of virus will be seen to spread a little, till its edges all round reach the rough surfaces by which it is confined. The strong adhesion of the two plates of glass will prove how perfectly the air is excluded.

"It has been suggested, (although, I believe, without any positive foundation) that *light* may act upon virus through glass; but this objection might with the greatest facility be removed, merely by spreading a little opaque black paint over the outside of the plates. It will be found that ground glass has also the advantage of making the plates in some degree stick together, whilst those made of plain glass are exceedingly apt to slide over each other; a piece of paper will therefore be perfectly sufficient to confine these plates; but if an apparatus still more convenient was required, it might probably be procured, on the same principle, by having a glass socket, ground to a glass stopper filling exactly the whole of its capacity, with the exception only of a small polished spot on the stopper itself, where the matter could be deposited. This, however, would be more or less expensive, whilst the other apparatus proposed (which was cut and ground for me at Mr. Parker's glass-shop) cost only one shilling.

"Glass, particularly if the plates be made of tolerable thickness, has the additional advantage of being a very bad conductor of heat, and of thus defending matter more effectually against changes of temperature, the importance of which you have strongly pointed out. It is obvious, for instance, that if a person stands very near the fire with matter in his pocket, both on a lancet and on glass, the lancet will become burning hot, before the internal surface

face of the glass has suffered scarcely any increase of temperature.

"It has been objected, that glass is apt to blunt the lancet; but if this should be found a material inconvenience, it might easily be removed by previously diluting and scraping the matter with another lancet, kept for that purpose; or, what would be still better, with some ivory instrument.

"I must at the same time confess, that in submitting to you these remarks, I reason rather from theory, and from the observations of others, than from any extensive personal experience; but as far as my own observation goes I may say, that I have found matter kept on glass uniformly successful; whilst I have repeatedly failed with virus kept on threads or lancets; and I have also sent to Copenhagen, matter simply enclosed in a letter between two plates of glass, which has succeeded perfectly.

"I am afraid, dear Sir, that the length of this letter requires some apology. I am perfectly sensible that the few observations it contains, can only deserve your attention from the importance of their object, and it is merely upon that ground that I have presumed to submit them to your consideration."

Extract of DR. JENNER'S *Answer to* DR. MARCET, *dated April* 6, 1803.

"——— I am obliged to you for the glasses you sent me for the preservation of Vaccine matter. They are better constructed for the purpose than any I have yet seen. What substance can be so good as glass for the conveyance of a virus so peculiarly delicate and liable to decomposition, to distant parts? I have known the Vaccine virus in full possession of all its specific properties, when preserved in this way, seventeen weeks; but it must be observed, that whatever substance be made use of, the quantity of fluid collected should not be too small. At the expiration of three months, some Vaccine virus which I had accumulated on a quill, and suspended in a half ounce phial, was used with complete success. By the way, from this virus the first patient ever inoculated in the metropolis received the Vaccine disease. It was used at my request by Mr. Cline."

MONTHLY

MONTHLY REPORTS.

Cases admitted under the Care of the Surgeon of the Finsbury Dispensary, St. John's Square, Clerkenwell, from March 10, to April 10, 1803.

Phlegmone	1	Tinea	1
Herniæ Humoralis	2	Perniones	2
Abscessus	7	Ecchymoma	1
Mortificationes	5	Varrucæ	2
Caries	1	Vagina imperforatu	1
Ulcera	10	Fungus Funis Umbilicalis	1
Vulnera	3	Hernia	1
Contusiones	6	Hæmorrhois	1
Spasma Malleoli	2	Strictura	1
——— Humeri	1	Hematuria	1
Lues	7	Vacciola	91
Gonorrhœa	1		
Prolapsus Ani	1	Total	151
Eruptio	1		

By the above list will be seen the great increase of the numbers of those who have been subjected to the Vaccine Inoculation at this Institution: it is scarcely necessary for me to add, that the most uniform success has attended every case: in some it has been necessary to repeat the operation of insertion, even although it is my constant practice (at the Dispensary) to inoculate with recent virus, by immediate transmission of it from one patient to another: this circumstance has been productive of some few days of delay, which has been the only inconvenience that has been in any case experienced; and in no one instance have I ever failed of ultimately producing the true pustule.

At the commencement of the practice of Vaccination much was said by different professional men, of extreme degrees of inflammation in the arms, and of ulceration succeeding to the desquamation of the scab of the pustule These circumstances were indeed considered by some persons as deducting considerably from the benignity of the disease; but of late we very seldom hear of an occurrence of this kind. I have myself had but one case of any soreness in the arm arising after the Vaccine Inoculation, which was during the last month, and which was occasioned by a fall which the child received, whereby the pustule was rubbed off by some gravel; the effect therefore could

could not with propriety be attributed to the Vaccine dicease.

It cannot be doubted but that philosophy has contributed much to the art of healing, by the discovery of many very valuable and very powerful remedies; the most active of which perhaps is that of Electricity, a remedy than which there certainly is no one more decidedly useful, but whose real merits are not properly appreciated, from the neglect which it experiences from many practitioners, and from its too diffused and improper application by others; whereby, in the former case, its real agency in the cure of disease is not seen in those in which it might be servicable; and, on the other hand, by using it too indiscriminately, disgrace becomes attached to it from its frequent failure, because, in fact, it is not a cure for all diseases. I have been for some years past in the habit of employing this remedy in various diseases, and I may add, that in those cases where its application seemed to be indicated, it has been attended with great advantage.

I have lately had a case of Chorea Sancti Viti, which has received much benefit from electricity, and seems to be very quickly advancing to a state of perfect recovery. This patient is a child of eight years, who was sent to me by one of the Physicians of the Dispensary, for the benefit of electricity. She had been affected by this disease during several years, which existed in a very terrible degree, insomuch that every muscle was affected by it; the affection, beside the chronic state of the disease which existed, appeared to have violent paroxysms, or rather exacerbations, several times in the day, during which the spasms were so violent, that she became in a state resembling Epilepsy. The physician had suspected the presence of worms, and prescribed vermifuge medicines accordingly several times in large doses without success, and had, with different views, had recourse to various remedies. I passed some shocks through the body in different directions; she went home, and at the first evacuation afterwards discharged several large worms of the lumbrici kind; this circumstance did not surprise me; it was what I expected from what I had frequently found, that where worms had resisted the action of the most powerful internal medicines, a few shocks through the abdomen had caused their discharge. I have continued the use of Electricity to this child, and her disease has now nearly left her.

The

The astonishing powers of Galvanism, which I certainly consider as the same fluid identically with electricity, but acting under a particular modification, must, undoubtedly attract the attention of the medical world; the principal experiments which have been made on Galvanism have been philosophical and chemical; but when we consider its agency on the animal fibre, even for several hours after life has ceased, the difference of the shock from that of electricity, so much less violent to our sensations, yet so much more powerful in effect, insomuch, that a short continuance of almost imperceptible shocks shall be capable of producing very considerable vascular action on a part, and other very curious facts; we may, I think, deem it a subject worthy of inquiry, how it acts in disease. Little has yet been done on this subject in this country; but the reports of its wonderful success on the continent, induce us to hope, that in it we have the most powerful remedy hitherto known in many diseases; and in diseases, otherwise incurable. Some observations I have made, lead to the same conclusion; but as much investigation is requisite before we can adequately appreciate a new remedy, I have commenced a course of experimental inquiries upon this subject, in which I intend impartially to try its effects in various diseases, particularly deafness, paralysis, chronic rheumatism, and insanity, should cases occur; likewise various cases which come under the notice of the Surgeon; likewise its powers, which we have reason to expect to be great. in cases of suspended animation; and to draw a comparison between it and electricity in all cases. The results of these inquiries will form the subject of a separate publication.

68, *Hatton Street.* J. RICARDS.

Account of Diseases in an Eastern District of London, from March 20, to April 20, 1803.

ACUTE DISEASES.		Gastrodynia	5
Synocha Catarrhalis	39	Dyspepsia	7
Rheumatismus Acutus	5	Amenorrhœa	12
Peripneumonia Notha	8	Menorrhagia	4
CHRONIC DISEASES.		Hysteria	3
Dyspnœa	10	Epilepsia	1
Phthisis Pulmonalis	4	Hypochondriasis	4
Hæmoptoe	3	Dysuria	3
Hydrops Pectoris	2	Herpes	4

Lepra

Lepra	1	INFANTILE DISEASES.	
Rheumatismus Chronicus	23	Aphthæ	3
PUERPERAL DISEASES.		Febris Mesenterica	4
Menorrhagia Lochialis	5	Tinea	2
Enuresis	2	Pertussis	3
Dolores post Partum	6		

The disease which has been considered as the reigning epidemic, and which was pretty largely described in our last report, has not yet entirely disappeared. It has, however, abated in its violence, and the number of patients afflicted by it is considerably smaller. To a disease, the consequences of which have been so general, the attention of the Faculty must have been particularly directed; and we accordingly find, that an account of its nature and symptoms, as well as of the most successful mode of treatment, has been given by different practitioners in a distinct publication, notice of which has been taken in the Numbers of this Journal.

As some steps are now taking by a society which enjoys the advantage of an extensive correspondence, with a view to obtain the most compleat history of this disease; it may be expected that a very general view of it will be afforded, not only as it has prevailed in the metropolis and its environs, but also in different parts of this kingdom, and in some more remote parts of the globe.

A Case *of* Pregnancy *which terminated fatally, with an Account of an unusual Appearance of the Uterus, by Cit.* Neyronis. *Communicated by our Correspondent at Paris.*

THE author tells us that he was called to a woman aged 42, who was then pregnant of her thirteenth child. The account she gave of herself was, that at the fifth month she had some flooding which lasted four days, accompanied by very sharp pains in the loins and cramps in the extremities. These complaints returned again on the seventh month. When Cit. N. was called she laboured under a third attack, more severe than the preceding, and from the strength and nature of the pains he had reason to expect a speedy delivery. He had remarked, however, that there was not the least appearance of dilatation of the os tincæ. She complained much of a sense of weight

towards

towards the orifice of the womb, and which she referred to the right side when she lay on the right, and vice versa. On questioning her more particularly, she said, that she had not perceived the child stir for five days; the pains, losses, and other circumstances just described had continued four days; the waters had been discharged since the first. From the resistance which the matrix offered, he thought it necessary to bleed her twice; many clysters and baths were had recourse to, without any advantage whatever. The pains ceased suddenly, and the patient very soon expired. The author tells us that he proceeded immediately to open the body, when the following appearances presented themselves: On cutting through the integuments, muscles, &c. into the uterus he found a male child, the head of which was of a monstrous size without being dropsical, measuring 22 inches in circumference; the epidermis came off on the least touch. He found the matrix three inches thick towards its fundus, particularly where it lies towards the bladder; but what most surprised him was, that its thickness at the neck was not so considerable, and which was nearly in its natural state. This thickness, or rather carcinomatous appearance, the author asks, was it not the cause of the floodings as well of preventing the pains from affecting the neck of the uterus so as to produce dilatation? What was to be done, he asks, to remedy a similar defect? Ought the Cæsarean operation be resorted to when every circumstance showed the child to be dead? Lastly, he asks, was it advisable or practicable when it was clear that the uterus itself made no efforts to discharge its contents? These questions the author puts without attempting to solve them, and contents himself with proposing the facts.

CRITICAL ANALYSIS

OF THE

RECENT PUBLICATIONS

ON THE

DIFFERENT BRANCHES OF PHYSIC, SURGERY, AND MEDICAL PHILOSOPHY.

Beytrage zur Chemischen Kentniss der Mineral Korper; i. e. Contributions to the Chemical Knowledge of Mineral Bodies; by MARTIN HENRY KLAPROTH, &c. third volume. Posen, 1802, 8vo. pp. 333.

IT is sufficiently known how much the analytical part of chemistry is indebted to the abilities and skill of the justly celebrated Klaproth, a name which will ever be respectfully pronounced in the annals of that science. The exertions of such men as Mr. Klaproth and Vauquelin, who, from the similarity of their merits, deserve to be nearly ranked, have much more contributed to the real advancement of the chemical art, than all the idle speculations of modern philosophers. The experience of centuries ought to have taught us, that the way which those gentlemen have traced out, is the only one by which it may arrive to that degree of perfection which it is capable of receiving through human abilities. Is it not by experiments and by facts, by the skilful management of the reagency, that modern chemists have so much succeeded in changing the face of this interesting science, as to render it useful to the arts, and conducive to the necessities and comforts of life? Why should we quit so sure a path towards perfection, and suffer ourselves to be led astray by the premature illusions of a licentious fancy? For such are the speculations of some German philosophers, who endeavour to extend this science beyond the region of facts and experience; whereby a prejudicial tendency in the study of Chemistry must necessarily be produced. The appearance of such works as the present, is therefore very consoling to an unprejudiced mind, and must be thankfully received by the public. As we suppose the two first volumes of this publication to be already in the hands of every chemist and mineralogist, we shall immediately turn our attention to the present, but lately published, the most interesting contents of which we beg leave to communicate to our readers. The preceding volumes contained about 72 chemical analyses, and these are continued in this volume to 116, some of which have already appeared in sundry periodical publications; the greater part, however, are quite new.

73. Ex-

73. *Examination of the Transylvanian Gold Ores, Native Tellurium.* Under this name the author comprehends an ore, hitherto known by the appellation of *aurum paradoxum*, or *problematicum*. One thousand grains of it consist of 925,50 tellurium, 72,0 iron, and 2,50 gold. The chief characteristics of the metal of tellurium are the following: 1. Its colour resembles that of tin, approaching a little to the colour of lead. 2. It may be divided into lamellæ of a glossy surface, and on being suffered to cool gently it obtains a crystalline surface. 3. It is very brittle and harsh. 4. It has very little specific weight, namely, 6,115. 5. It is easily fusible, melting sooner than antimony, but later than lead. 6. It quickly takes fire before the blow pipe, burning with a light blue flame, which at its margin passes over to green. 7. It seems to enter into no combination with quicksilver. 8. Mixed and melted with sulphur, it forms a greyish, radiant ore. 9. It is perfectly soluble in nitric acid; the solution is quite clear, and not changed by the addition of water. 10. It makes likewise a clear solution with muriatic acid, particularly on adding a few drops of nitric acid. 11. On infusing one part of tellurium with 100 parts of concentrated sulphuric acid, an amethystine solution is formed, from which, however, the tellurium is separated by water in form of blackish flakes, and thus the beautiful colour disappears. 12. Sulphuric acid diluted with three parts of water dissolves the metal very easily, on adding a few drops of nitric acid: the solution is without colour and not decomposed by simple water. 13. Alkalis precipitate the oxyd of tellurium from all its solutions in acids with a white colour; but it is then very easily soluble in acids; and on adding more alkali than is absolutely necessary for making the precipitation, the oxyd is again dissolved, the alkali may have been caustic or not. The weight of the precipitated tellurium is increased by 20 per cent. if the alkali be caustic. 14. The solutions of tellurium in acids are not precipitated by prussiate of kali. 15. The sulphats of alkali precipitate the tellurium with a more or less brown colour. 16. Tincture of galls makes a yellowish precipitation. 17. Zinc and iron precipitate tellurium in metallic form, which is likewise the case with tin and antimony. Phosphorus even is covered with metallic lamella, if laid into a muriatic solution of tellurium. 18. Oxyd of tellurium is revived into metal on coal; but it is immediately volatilised and burned; the reduction of this metal must therefore be made in a closed vessel.—*Aurum graphicum*, 100 parts of which contain 60 metal of tellurium, 30 gold, 10 silver, &c.

75. *Chemical Analysis of the Scheele ore.* (Wolfram). The analyses of this metal is somewhat different from that of the late Mr. Scheele. The author found, in 100 parts, 77,75 yellow oxyd; 17,60 lime, 3 siliceous earth; and in scheelit, from Cornwall, 75,25 yellow oxyd, 18,70 lime, 1,30 siliceous earth, 1,23 oxyd of iron, and 0,75 oxyd of manganese.

76. *Chemical Analysis of the Gadolinit.* Having proposed the History of its Discovery and Chemical Analysis, the author proceeds to give a description of this mineral, and adds his own analysis, according to which 100 parts of the gadolinit contained 59,75 ytter earth, 21,25 siliceous earth, 17,50 black oxyd of iron, 0,50 aluminous earth, and 0,50 water. For separating the iron the author made use of the succinat of natron. The experiments of Mr. Klaproth manifestly show the identity of the ytter earth, and its real difference from the glycine.

77. *Chemical Examination of the Egyptian Natron.* Besides the earthy admixtures, this alkali contains 163 carbonat of natron, 104 dry sulphat of natron, 75 dry muriat of natron, and 158 water.

78. *Chemical Examination of the Radiant Natron.* The natron found in the natron lakes of Egypt, frequently occurs in crystaline masses of a considerable hardness, and it never falls into a powder, on account of which property Mr. K. thought it worthy of being examined. He found in 100 parts of radiant natron of Tripolis, 22,50 water of crystallisation, 38 carbonic, 37 pure natron, and 2,50 sulphat of natron. The great proportion of carbonic acid seems therefore to account for that property of the Egyptian natron.

79. *Chemical Analysis of native Sal Ammonia.*

80. *Chemical Examination of the Sassolin.* The native sal sedativum, which bears the name of sassolin, consists of a white brittle salt with yellow spots, the principal constituent of which is free boracic acid. Mr. Mascagni found it at the margin of a hot spring, near Sasso in Siena. It consists of 86 boracic acid, 11 sulphat of borax, and 3 sulphat of lime, with some iron particles, &c.

82. *Chemical Analysis of the Elastic Bitumen.* This substance is from the lead mine, Odin, near Castleton, in Derbyshire. The products obtained by its analysis were 38 cubic inches of carbonated hydrogen gas, 4 cubic inches carbonic gas, 73 grains of bituminous oil, 1,50 acidulous water, 6,25 coal, 2 lime, 1,50 siliceous earth, 0,75 oxyd of iron, 0,50 sulphat of lime, 0,25 aluminous earth. This analysis, however, gives no explanation of the singular properties of this bitumen.

84. *Chemical Analysis of the Honeystone.* This excellent analysis proves that the honeystone consists of a peculiar acid, and 106 parts of it contain 46 melilithic acid, 16 aluminous earth, and 38 water of crystallisation.

85. *Chemical Analysis of the Umbra.* The true umbra of the island of Cyprus, consists of 48 oxyd of iron, 20 oxyd of manganese, 13 siliceous earth, 5 aluminous earth, 49 water.

86. *Chemical Examination of a muriated Lead Ore, or Lead Spar.* The existence of such an ore was still uncertain, but is proved by the present analysis. The author received this mineral from Derbyshire, in which he found 85,50 oxyd of lead, 8,50 muriatic

muriatic acid, and 6 carbonic acid, with a little water of crystallisation. He made use for this analysis of the purest kali, which he prepared in the following manner: Having dissolved pure nitre in distilled water, he added nitriate of silver, and having filtrated the liquor, evaporated it to dryness, and burned it in a clean iron crucible with pure coal; and being dissolved and neutralised with nitric and acetic acid, it was not in the least rendered turbid by the solutions of silver; whence it appears that the muriatic acid, discovered in that lead ore, did not originate in the kali, which was used for the analysis.

87. *Chemical Analysis of Phosphated Ores.* Amongst the different lead spars which are here examined, we observe that the yellow lead ore from Wanlock-Head, contains 80 oxyd of lead, 18 phosphoric acid, and 1,62 muriatic acid.

88. *Chemical Analysis of Sulphated Lead Ores.* 1. *From Anglesea,* 71 oxyd of lead, 24,80 sulphuric acid, 2 water of crystallisation, 1 oxyd of iron.—2. *From Lead Hills,* 70,50 oxyd of lead, 25,75 sulphuric acid, 2,25 water of crystallisation.

89. *Chemical Examination of the Lamellar, White Lead Ore from Lead Hills.* About 77 oxygen.

90, &c. *Analysis of several Antimony Ores from the Harz.*

94. *Chemical Analysis of the Olive Ore.* 50,62 oxyd of copper, 45 arsenic acid, and 3,50 water of crystallisation.

95. *Chemical Analysis of the Muriated Copper.* 73 oxyd of copper, 10,1 muriatic acid, and 16,09 water of crystallisation.

96. *Chemical Analysis of the phosphated Copper.* 68,13 oxyd of copper, 30.95 phosphoric acid.

97. *Chemical Examination of the Kryolithos.* 36 natrum, 24 aluminous earth, 40, fluoric acid.

98. *Chemical Analysis of the Beryll,* agrees almost with that given by Mr. Vauquelin. The author found in 100 parts of this fossil 66,45 siliceous earth, 16,75 aluminous earth, 15,50 glycine, or beryll earth, and 0,60 oxyd of iron.

99. *Chemical Analysis of the Emerald.* 100 parts contained 68,50 siliceous earth, 16,75 aluminous earth, 12,50 glycine, 0,25 lime, 1 oxyd of iron, 0,30 oxyd of chromium.

100. *Chemical Analysis of the Klingstone,* which is the hardest kind of fieldspar.

101. *Chemical Analysis of the Basaltes,* 100 parts of which contain 44,50 siliceous earth, 16,75 aluminous earth, 20 oxyd of iron, 9,50 lime, 2,25 magnesia, 0,12 oxyd of manganese, 2,60 natrum, 2 water.

102. *Chemical Analysis of the Pitchstone.* One hundred parts consisted of 78 siliceous earth, 14.50 aluminous earth, 1 lime, 1 oxyd of iron, 0,10 oxyd of manganese, 1,75 natrum, and 8,50 water.

103. *Addition to the Chemical Analysis of the Pitchstone.* It contains natrum and kali at the same time, which is very remarkable.

104. *Chemical Analysis of the Zirkon, from Norway.* 65 zirkon earth, 33 siliceous earth, 1 oxyd of iron.

105. *Analysis of the Madreporit.* 100 parts contained 93 carbonat of lime, 0,50 carbonat of magnesia, 1,25 carbonat of iron, 0,50 coal, 4,50 siliceous sand, and some traces of oxyd of manganese.

106. *Chemical Examination of the Pharmacolith.* 50,54 arsenic acid, 25 lime, and 24,46 water.

107. *Chemical Examination of the Scorza.* This name is given in Wallachia and Transsylvania to a sandy mineral of a yellow greenish colour, in small roundish grains, 100 parts of which contained 43 siliceous earth, 21 aluminous earth, 14 lime, 16,50 oxyd of iron, 0,25 oxyd of manganese.

108. *Chemical Analysis of the fibrous Sulphat of Barytes.*

109. *Chemical Examination of the Tabular Spar,* (Tafelspath.) 50 siliceous earth, 45 lime, and 5 water.

110. *Chemical Analysis of the Miemit.* This fossil bears its name from its native place, Miemo, in the duchy of Toscana, where it was first discovered in the year 1791, by Mr. Thomson. One hundred parts of it contain 53 carbonat of lime, 42,20 carbonat of magnesia, 3 carbonat of iron, and some traces of manganese.

112. *Chemical Analysis of the fibrous Grey Ore of Manganese.* 1. From the Harz. 100 parts contained 90,50 black oxyd of manganese, combined with the maximum of oxygen, which it is capable of retaining in fire. 2 From Moravia, 89 black oxyd of manganese, 0,50 water, 10,25 oxygen.

114. *Chemical Examination of the Terreous Black Ore of Manganese.* 68 brown oxyd of manganese, 6,50 oxyd of iron, 1 coal, 1 barytes, 8 siliceous earth, 17,50 water.

114. *Chemical Examination of the Asphaltes from Albania.*

115. *Chemical Analysis of the earthy Bovey Coal.*

116. *Chemical Analysis of the Hungarian Pearl Stone.* One hundred parts of this fossil contain 75,25 siliceous earth, 12 aluminous earth, 1,60 oxyd of iron, 0,50 lime, 4,50 kali, and 4,50 water.

Such are the contents of this interesting work, the continuation of which will undoubtedly be very much desired by Chemists as well as Mineralogists.

A Popular View of the Structure and Economy of the Human Body, &c. by John Feltham. London, 1803, pp. 452. 8vo.

Though the work before us will hardly excite the attention of the greater part of *our* readers; yet as the author professes to have performed a task which has long been considered by some as a desideratum in the study of anatomy, we shall give a short view of its leading contents.

The object of this work is to give such a compendious view of the structure and economy of the human body as to be within the reach

reach and comprehension of every person of tolerably liberal education; unrestricted to age, sex, or profession. The present times are not very unfavourable to such a plan; an excellent institution, patronized by rank and fashion, and supported solely by private contributions, already bears an honourable testimony to the zeal for the advancement of science existing in this metropolis; and it is no very unreasonable expectation to entertain, that the study of Anatomy, properly directed, may in time become a part of the regular education of youth, whom it cannot fail to interest, delight, and improve. The author does not hesitate to recommend this study to women, both "to enable them to take proper care of their own health, and to make them rational superintendants of their infants, parents, and husbands. Till of late years," he observes, "women were kept in a state of Turkish ignorance as to the objects and means of intellectual improvement; every source and channel of acquiring knowledge was obstructed, if not discountenanced, by fashion: Books of science were replete with a jargon of unintelligible terms, by which ignorance was often mysteriously and pompously veiled and shielded from public contempt; but now, by a happy revolution in the public taste and judgment, writers offer these discoveries to the public in distinct terms, which every body may understand; technical language is no longer allowed to supply the place of real knowledge, and the art of communicating instruction has been carried to the greatest perfection."

Another and a very laudable object which the author proposes, is to exhibit such a view of the anatomy of the human frame, "as may be calculated to inspire veneration and love for the Supreme Artificer;" and certainly, of all sciences, Anatomy is the richest in those examples and illustrations of supreme contrivance, which immediately appeal to the understanding, and interest the imagination. Considered in this point of view, however, it is not a very easy task to introduce with grace and elegance these appeals to the religious sense derived from the inspection of the works of Nature. When not intended to form the basis of logical induction, (as in the late admired work of the learned and philosophic Paley) they should flow easily and directly from the subject, not constantly recurring nor ostentatiously prominent; and the rich but turgid style of the celebrated author of the Meditations, can be but ill engrafted on that of simple and perspicuous narrative, in which instruction should be conveyed.

The introductory chapter of the present work contains, after the usual compliment to modern improvements in science, (among which the *metallic tractors* are represented on equal terms with Galvanism) a slight and trifling sketch of the history of Anatomy, to which succeeds a clear and neat explanation of the parts of the human body, together with their general uses.

In the second chapter a familiar view of the structure of the human body is given. Though by no means compleat, it is elegant and interesting; the important processes of digestion and nutrition are

are first explained, and the chapter concludes with an animated description of the senses, principally taken from Hervey.

Osteology is a part of Anatomy well calculated to exercise the powers of description of any writer who wishes to make Anatomy entertaining as well as interesting. By constantly recurring to the uses of parts, and the admirable contrivances for giving support, protection, and mobility, osteology may be rendered in no small degree attractive, especially to those who possess some knowledge in mechanics. This is the subject of the third part of the present work. The description is clear and intelligible, but is far from exhibiting such a view of osteology as the limits of the chapter would well allow of; and this unnecessary brevity much diminishes the force of the numerous appeals to the devotional sense, by rendering them too general, and not sufficiently appropriate.

The fourth chapter contains a general description of the structure of the muscles, and of the supposed cause of muscular motion, which latter is thus described, "If a muscle is pricked or irritated it immediately contracts. This is called its irritable principle, and this irritability is to be considered as the characteristic of muscular fibres, and may serve to prove their existence in parts that are too minute to be examined by the eye. This power, which disposes the muscles to contract when stimulated, independant of the will, is supposed to be inherent in them, and is therefore named *vis insita;* this property is not to be confounded with elasticity, which the membranes and other parts of the body possess in a greater or less degree in common with muscles; nor with *sensibility*, for the heart, though the most irritable, seems to be the least sensible of any of the muscular parts of the body. After a muscular fibre has contracted, it soon returns to a state of relaxation, till it is excited afresh, and then it contracts and relaxes again: such a contraction may likewise be produced by irritating the nerve leading to a muscle, although the nerve itself is not affected."

An account of the nervous system follows, in the fifth chapter, which is accurate and interesting in the merely descriptive part, but short and unsatisfactory in the theoretical opinions concerning nervous influence.

The sixth chapter, which contains a description of the blood-vessels, heart, and circulating system, is perhaps the most complete in the volume, and appears to us fully to answer to the plan of the author, in exhibiting, in a moderate compass, a clear view of the subject, unincumbered with many technical terms, and readily acquired by the student. The description of the heart will serve as a good example of the author's manner of treating the subject.

"As the heart is the fountain from which this vital fluid issues, it may be necessary to say, that the heart is a hollow, involuntary muscle, of a conical shape. Its basis, from which the great vessels arise, is covered with fat, and it has two hollow and fleshy appendages called Auricles. The heart includes two cavities, divided from each other by a fleshy septum; one of these is called the right,

right, the other the left ventricle, though perhaps they might more properly be termed the anterior and posterior ventricles. From the contraction of one of these ventricles the blood is forced into vessels, which carry it into the remotest part of the system; these vessels are called arteries; and it is brought back again by another set of vessels called Veins, to the heart, so that the same force which sends it forward, also beings it back again. The right ventricle is not quite so long, though somewhat larger than the left, but the latter has more substance than the former; and this seems to be, because it is intended to transmit the blood to the most distant parts of the body, whereas the right ventricle only distributes it to the lungs. The heart is usually described as of a pyramidal form, but one of its sides is rather flat, and this is placed downward; the right side is placed in front: but in brutes, the right ventricle is on the right side, and the left on the left, from whence their names.

"The auricles are situated at the basis of the heart; these muscular bags, corresponding with the ventricles, are like them divided into right and left; from their externally appearing like ears, they derive their name of auricles. The heart, in contracting, throws the blood from its ventricles into the pulmonary artery, and the great artery termed *aorta*, it then relaxes and receives a fresh supply, from two large veins, which are the pulmonary veins, and the vena cava; the principal distribution of these are as follows."

In the two following chapters the author describes, first, the *Internal Parts of the Body*, including under this title, the contents of the three great cavities of the cranium, thorax, and abdomen; and, secondly, the *External Divisions of the Body*, containing the anatomy and functions of the skin, external organs of respiration, and of the senses.

The subject of the ninth chapter is of all others the most difficult to be well and properly treated of in a popular work like the present; it is, *The Structure of the Human Form, Male and Female.* The distinction of sex, and the very important branch of anatomy connected with it, must claim a large share of attention in the study of the animal frame; but the author, well aware of the difficulty of the subject under his plan of general information, has (probably with great propriety) chosen rather to leave his work imperfect, than to introduce any thing which could be thought objectionable by the most delicate parent or instructor. The present chapter, therefore, only treats of the differences of form and features, and of general character, both in external organization, and in moral habits, tastes, and inclinations, which exist in the different sexes. These are described with elegance and delicacy.

The tenth and eleventh chapters, which conclude the volume, contain a slight view of comparative anatomy, which however will be perused with interest and entertainment.

The author has, we think, succeeded in making an useful and entertaining compendium of anatomy; but we must add, that with the

the anatomical knowledge which he appears to possess, and the powers for accurate description, and for clear and forcible condensation of an extensive subject, which sometimes appear in these pages, a greater attention to order and arrangement, and fewer digressions, would have rendered the work much more valuable, instructive and entertaining. It must give disappointment, even to the most pious reader, when in search of matter of fact and actual information, to be constantly diverted from his enquiry by devotional reflections, which, however excellent in themselves, lose much of their force by anticipating those subjects which they would have followed with peculiar propriety. The author does not reject the assistance of the Muses to decorate his labours, and the poetical description which he occasionally introduces is generally highly elegant and well selected. As our Retrospect is not often enlivened by such ornaments, we shall quote for our reader's entertainment the following original poetical address.

TO THE HUMAN COUNTENANCE.

Mystic source of strange expression,
Fairest link of nature's chain,
Stamp'd with God's divine impression
O'er his mighty works to reign;

Whence, O say, thy mighty treasure?
From what wide, unknown abyss,
Ever yield'st thou endless pleasure,
Speechless, gentlest, wildest bliss?

Is it in thy front aspiring,
Where the virgin lily blows,
While, with living purple firing,
Spreads the gentle, blushing rose?

Or, with pensive lustre streaming,
Where yon sparkling glories rise,
Sweetly sad, like Cynthia beaming,
In thy love-inspiring eyes?

Is it in yon bed of roses,
Breathing thousand odours round;
Lucy's lip, where love reposes,
In etherial fetters bound?

Or, in yonder winding dimples,
Magic cells of fairy art,
Where the elfin, culling simples,
Brews his spell upon the heart?

"Cease, O cease thee, sightless creature,"
Thus I hear thee stern reply,
"'Tis not in *one* wizard feature
"My enchanting sources lie;

"Neither

"Neither yet, where gently flowing,
"Each in each congenial run,
"Softly blending, fading, glowing,
"Sweetly struggling into one.

"But in that mysterious union,
"Secret source of strange control,
"In that sweet, divine communion
"Of the features and the soul.

"Ponder then, O child of pleasure;
"Haste to seize on *Virtue's* grace,
"Woud'st thou have the magic treasure
"Of a love-inspiring face."

Observations on a late Publication of Dr. Pearson, entitled, An Examination of the Report of the Committee of the House of Commons, on the Claims of Remuneration for the Vaccine Pock Inoculation. With an Appendix, containing some Reflections on an Article in the Critical Review for October last, respecting the same Publication. By HENRY HICKS. London, 8vo. pp. 74.

WHEN we mentioned Mr. Creaser's pamphlet, (p. 286 of this vol.) on the same subject as the present, we passed it over very shortly, believing that the public opinion was already decided on this point. The appearance, however, of Mr. Hicks's work, and some other recent publications, convince us that there are some who think otherwise, though the number may be small. The object of both these pamphlets is the same, viz. to vindicate the conduct and fame of Dr. Jenner, and to answer Dr. Pearson: but the style and manner in which this is done, are very different. Mr. Creaser treats the subject with the calmness of philosophical investigation, and seems only desirous of establishing the truth. Mr. Hicks does not content himself with merely vindicating his friend, but frequently attacks his opponent with considerable severity. This he justifies on the ground of the long and intimate friendship which has subsisted between Dr. Jenner and the writer. "I feel," says he, "a considerable degree of reluctance in addressing the public upon a subject which has so much occupied its attention; and I certainly should not have undertaken such a task, if the reputation of a man, with whom I am proud and happy to say I have ever lived in the closest and most uninterrupted friendship, had not been attacked in the most shameless and unjustifiable manner by Dr. Pearson, in a late publication, entitled, 'An Examination of the Report of the Committee of the House of Commons, on the Claims of Remuneration for the Vaccine Pock Inoculation.'

"Before I took up my pen, I wrote to my friend, Dr. Jenner, to ask him, whether he intended to make any Reply to Dr. Pearson's invidious attack upon his reputation. His answer was, as I expected

expected it would be) that as he had never yet thought it worth his while to notice any of his former remarks, he should now pursue the same line of conduct, and treat his present publication with silent contempt.

"Under the impression of this determination, with feelings of the most affectionate regard for Dr. Jenner, I cannot think it necessary to make any further apology for having thus come forwards in his defence."

The only part of the evidence brought forward by Dr. P. which could apply to Dr. Jenner, we think was that furnished by the Rev. Mr. Drewe; and this, if it had gone as far as Dr. P. seemed to hope and expect, could only have affected his claim to priority of idea, not to renumeration; unless it had been proved that Dr. Jenner received his information from the Rev. Mr. Drewe, which has never been insinuated. Mr. Hicks thus states the amount of that evidence.

"In page 4, of his first publication, Dr. Pearson gives Dr. Jenner the greatest merit 'for the industry of his researches, in ascertaining the invaluable fact of Cow-pox being an effectual preventive of Small-pox;' and he tells us, that the late Mr. John Hunter communicated to him the information he had received from Dr. Jenner, upon this subject, about nine years ago. Dr. Pearson, himself, in his lectures, always mentioned the circumstance as reflecting credit upon Dr. Jenner, and as a striking proof of his ingenuity; but when this declaration was made, the spirit of enmity had not taken possession of his mind.

"Page 6, Dr. Pearson says, "that on conversing with Sir George Baker, Bart. concerning the Cow-pox rendering people unsusceptible of the variolous disease, Sir George observed, he had been informed of the same fact, in some papers on the Cow-pox, communicated to him many years ago; but as the statement did not then obtain credit, it was not published. After a fruitless search for these papers, Sir George, whose zeal for the improvement of physic did not forsake him on this occasion, authorized me to write to his relative, the Rev. Herman Drewe, of Abbots."

Dr. P. next gives us Mr. Drewe's letter, dated July 5, 1798, by which we are informed, that a Mr. Bragge, who inoculated his parish for the Small-pox, charged with a superabundance of matter three women that had had the Cow-pox, who completely resisted the infection; and who were not in the least disordered, though they constantly associated with other patients who had been inoculated for the Small-pox with effect. He also adds, that there were thirteen similar instances in the same neighbourhood. Mr. Drewe then tells Dr. Pearson from whom he received all his information, and concludes by saying, 'that he had not thought of the matter since, and that as his letter on the subject had escaped Sir George Baker's search, so had many particulars escaped his recollection.' Was ever any thing more vague or unsatisfactory than all this? Can it be supposed that Sir George Baker, a man

of

of such active scientific enquiry, would have destroyed or mislaid papers,* which tended to throw so much new light on so important a branch of physiology?

"I wish my readers to compare this statement with that which Dr. Pearson adduced before the Committee, and which he has detailed from page 17 to 29.

"I would ask Dr. Pearson, why this correspondence, which is so slightly mentioned in his first publication, swells into so much consequence upon the presentation of Dr. Jenner's petition, and why he anxiously labours to convert it into the means of depriving him of the merit of being the Discoverer of Vaccine Inoculation? If truth is to dictate the reply, this question may soon be answered.—We can only refer it to that spirit of hostility against Dr. Jenner's reputation, which so strongly marks all his proceedings.

"We next remark a quotation from Mr. Drewe's letter, which stands in direct opposition to what Dr. Pearson endeavours to support, from a correspondence upon which I have before made some observations. Mr. Drewe says, 'Mr. Bragge and I endeavoured to try the experiment of Inoculation with the matter of Cow-pox, but from the scarceness of the disease, and the unwillingness of patients, we were disappointed.' Where then are all the boasted experiments of these gentlemen? What I have already said is sufficient to shew the real character of Dr. Pearson; and I trust I shall be able to prove, in my subsequent remarks, notwithstanding the panegyric which Dr. Pearson has lavished upon himself, that he has by no means improved the practice; that he has not established a single new fact; and, that he has totally failed in his invidious efforts to blast the well-earned fame of Dr. Jenner.

"I shall now proceed with my observations upon Dr. Pearson's examination of the Report of the Committee.

"The very first page presents something so insidious, that it ought not to pass unnoticed: Dr. Pearson says, 'that he can with truth declare, Dr. Jenner to be the *first discoverer to the public* of Vaccine Inoculation, agreeable to the acknowledgement contained in his first publication.' He, then, thinks it necessary to explain what he means by *discoverer to the Public;* in which he betrays a most determnied opposition to Dr. Jenner's claim to originality, as well as to the grounds upon which the Committee thought he had founded his title to public remuneration. The first emotion which is excited in an ingenuous mind, by this hypocritical explanation, must be a strong feeling of contempt, but this will be immediately succeeded by the stronger impulses of indignation.

Though Dr. Pearson labours and toils throughout his whole book

* I have heard that Sir George Baker declared he burnt the papers designedly. A pretty convincing proof of what value they were in his estimation.

book to detract from the propriety of all Dr. Jenner's claims, any unprejudiced person will at once perceive, how totally he has failed in his design, and how much he has exposed his own want of *candor* and *justice.*

"I cannot help frequently recurring to a comparison of some of Dr. Pearson's own statements; and, perhaps, this is the shortest way of exposing their fallacy. In page 2, of his late work, he tells us, 'that no fact has informed him that human society would have been at this hour in the possession of the blessings of Vaccine Inoculation, had it not been for Dr. Jenner's publication of the treatise on the causes and effects of the Variolæ Vaccinæ, in June, 1798.' "Does not this confession comprize every thing that can be advanced upon the subject? and, after such a confession, are not all Dr. Pearson's arguments against Dr. Jenner's claim to originality perfectly nugatory? It seems almost to supersede the necessity of going further into the question. Does this at all agree with Dr. Pearson's remarks on the correspondence of Mr. Drewe, &c.? Were not these correspondences brought forwards with the view of detracting from Dr. Jenner's merits? There is something so invidious (I had almost said malevolent) in the whole of this transaction, that I know not how to employ language sufficiently strong to express my reprobation of it. If all these facts had existed, as related in these letters and in Mr. Nash's evidence, how are they to be reconciled to Dr. Pearson's declaration which I have just before recited?"

On the Inutility and Dangers of Vaccine Inoculation, proved by Facts, by Cit. Goetz, *of Paris.* French 8vo. pp. 90. Paris, 1802.

The following passage, which we have translated as literally as possible, will shew the merit of this extraordinary production as well as the author's knowledge of the subject upon which he has written.

"The vaccine virus must act in one or other of these two ways; either it must *destroy* the germe of the small-pox, which lies latent in the constitution of every one who has not had the disease; or it must *neutralize* this germe."

The former supposition he thinks improbable, and on the latter he says, "Will you pretend to neutralize to the germe of the small-pox by inserting vaccine virus alone? No, doubtless; since it is proved that the matter you employ, and to which you have been pleased to give the name of vaccine virus, is nothing else but a *mixture of this last with the matter of small-pox.* What is the result of this mixture, &c.

Facts and Observations respecting the Air-Pump Vapour-Bath, in Gout, Rheumatism, Palsy, and other Diseases. By R. Blegborough, M. D. 12mo. pp. 150. London, 1803.

The utility of applying heat, moisture, and a varied pressure of the atmosphere, to the surface of the body, in the manner here recommended;

ended, is shewn in a variety of cases of gout, rheumatism, palsy, cutaneous affections, and chronic pains. The whole is interspersed with observations and inferences calculated to extend its use to many other complaints in which it has not yet been sufficiently tried: such as tetanus, amenorrhæa, dropsy, chilblains, &c. The work concludes with an appendix, explaining the principles on which the apparatus acts on the human body, and the means by which the invention was brought to its present degree of perfection.

The Domestic Medical Guide, or Complete Companion to the Family Medicine Chest; comprising a copious Account of Diseases, and the most rational Mode of Treatment, the Management of Children, Treatment of Poisons, of drowned Persons, and the Method of destroying Contagion. By R. Reece. 8vo. pp. 302. London, 1803.

This work is divided into two parts. The first contains an account of such medicines as families residing in the country should be provided with; more especially if at a distance from medical aid. The utility of such a provision, we believe, is generally acknowledged; and the difficulty of preventing an improper use of it, as generally confessed. Mr. R. endeavours to prevent family quackery by suitable cautions and directions; and if these are attended to, we think his medicine chest may be made a very useful addition to the furniture of a country mansion. There can be little doubt that many valuable lives are lost for want of timely assistance; and where it is often difficult to get a practitioner in less than eight or twelve hours, this must frequently happen. In cases of poisons swallowed, of drowning, burns, and fits, as well as acute diseases, the aid must be speedy to be effectual. Under this impression, we have no hesitation in recommending Mr. R's collection of family medicines, and his directions for using them when necessary.

The Second Part contains, an account of poisons, suspended animation, nursing, and a description of the diseases which occur in this country, with their distinguishing characters and treatment.

The observations on quack medicines are well calculated to guard the public from their pernicious effects.

MEDICAL

MEDICAL AND PHYSICAL INTELLIGENCE.

[FOREIGN AND DOMESTIC.]

Dr. Erdman, extolls highly the singular efficacy of the spongia usta in all sorts of glandular diseases. The use it has in broncho-cele and struma, induced him to try it also in other diseases of the glands, which appear to be analogous in their origin and proximate cause with the former. He in the first place mentions his mode of giving this remedy in struma, which is the following:

℞. Spong. ust. unc. ß. Sacch. alb. unc. j ß. M. f. pulv. s.; a tea-spoon full to be taken dry early in the morning and at night.

At the same time he orders a stiff collar to be worn and to keep the neck warm. In this manner the tumor generally disappears within two months, but it is advisable to wear the collar for some time after.

Dr. E. having observed, that the hooping cough particularly attacks scrophulous and rickety children, and that often immediately after obstinate hooping coughs, glandular tumors and scrophulous atrophiæ supervene, he conceived the opinion, that the nature of this disease might originate from the miasmata being deposited in the small glandules of the trachea and bronchiæ, by which they are obstructed, and thus the violent irritation and spasm are produced, which so often suffocate children. In consequence of this conjecture, Dr. E. employed the spongia usta in that affection, and he had the satisfaction to observe the most surprizing advantages result from the continued use of that remedy. The disease diminished by degrees and was entirely removed by the sole use of that remedy, except in cases where an hectic fever had already taken place.

It is farther an almost infallible remedy in chronic hoarseness, particularly when caused by a catarrhous matter, which is deposited on the glandules of the larynx and trachea. In this complaint it proved of great service, even when blisters, resolvents, and other remedies had been employed without success.

The spongia usta is likewise very servicable in metastases on the glands, occasioned by the measles and the scarlet fever.

In the rickets this remedy was used with advantage, combined with different aromata, cortex cinnamomi, cortex aurant. caryophyll. &c.

Obstinate cardialgies seem in some cases to be owing to an obstruction or schirrus of the pancreas, at least Dr. E. conformable to this idea, gave the spongia usta with great success in several cases of the above disease; the dose was one scruple or half a drachm a day,

day. Sometimes he prescribed a tea of valerian, chamomile flowers and orange leaves to be used at the same time, which, when employed alone, had never proved efficacious. By this method Dr. Erdman cured several cases of the most inveterate cardialgy, for which the whole series of antispasmodic remedies had been tried without effect. He concludes his observations, with remarking that he never saw any ill consequence arise from the application of that remedy, and he even gave it to persons who had been a short time before spitting blood, and who had a shortness of breath, without its ever having done them any harm.

M. I. P. Terras, Surgeon of Geneva, recommends the administration of mercurial ointment internally as very advantageous in the cure of the venereal disease. This mode of administering mercury he found had been already employed by Dr. Frize, of Berlin; he recommends the ointment to be prepared with care and composed of equal parts of lard and mercury, which he says should be prepared at least six months before it is used, in order to give time to the sebaceous acid to reduce the mercury to a saline state. M. T. gives several cases to prove the efficacy of this preparation, but which contain nothing of interest or worthy of remark. M. Sedillot, one of the Editors of the Recueil Periodique, of the Medical Society, follows up these observations by recommending what he calls a mercurial soap, instead of the preparation recommended by M. Terras, which he says had been used long since, as well by himself as his brother in the Hospital of the Beutre, near Paris; a sense of weight and other inconveniences, which he observed from the use of mercurial ointment internally, induced him to try the following form: ℞. Soap, 2 oz. double merc. ointment, 3 oz. starch, 1 oz. The whole to be made into a mass, and divided into pills of six grains each; the dose is from three to twelve pills in the day. This medicine, he says, is well fitted to remove glandular swellings or tophous concretions from a venereal cause. It is in these cases M. Sedillot's brother has employed it for more than twenty years, and he is convinced that of all the mercurial preparations this is the most powerful. He allows however, that mercurial frictions are sometimes necessary, as well as solution of corrosive sublimate, decoction of the woods, &c.

At a late meeting of the Galvanic Society of Paris, M. M. Nauche and Pagot Laporet communicated a new Galvanic fact. They observed that frogs, in a temperature of 10 deg. below 0 of Reaumur, when submitted to the reiterated contact of the conductor communicating with the copper pole, the devellopement of a whitish mucus fluid was very abundantly produced from the liver, lungs, and particularly from the nerves of the heart; that it was but in small quantity from the muscles, intestines, and hardly any from the integuments; while the conductor communicating with the

the zinc pole, far from producing the same effect, rather appeared to counteract it.

Mr. ASTLEY COOPER, Surgeon of Guy's Hospital, will publish in the course of the summer, a Treatise on the Anatomy and Surgical Treatment of Hernia, illustrated with plates of the size of Nature, principally taken from cases that have been admitted into St. Thomas's and Guy's Hospitals. The work will be divided into three parts. The first will contain the description of every species of inguinal hernia, one of which is its passage on the inner side of the epigastric artery; in the second, the subjects of hernia tunicæ vaginalis, and femoral hernia, will be treated of; and the third part will contain hernia of the navel, ischiatic notch, foramen ovale, and some hitherto undescribed varieties.

Mr. WILKINSON, of Soho-square, whose scientific Lectures on Galvanism have deservedly attracted so much notice, will speedily publish his promised History of that interesting science, drawn chiefly from Citizen Sué's work, to which he proposes to add a familiar introduction to the practice of Galvanism, a description of the various apparatus, and an account of the last experiments.

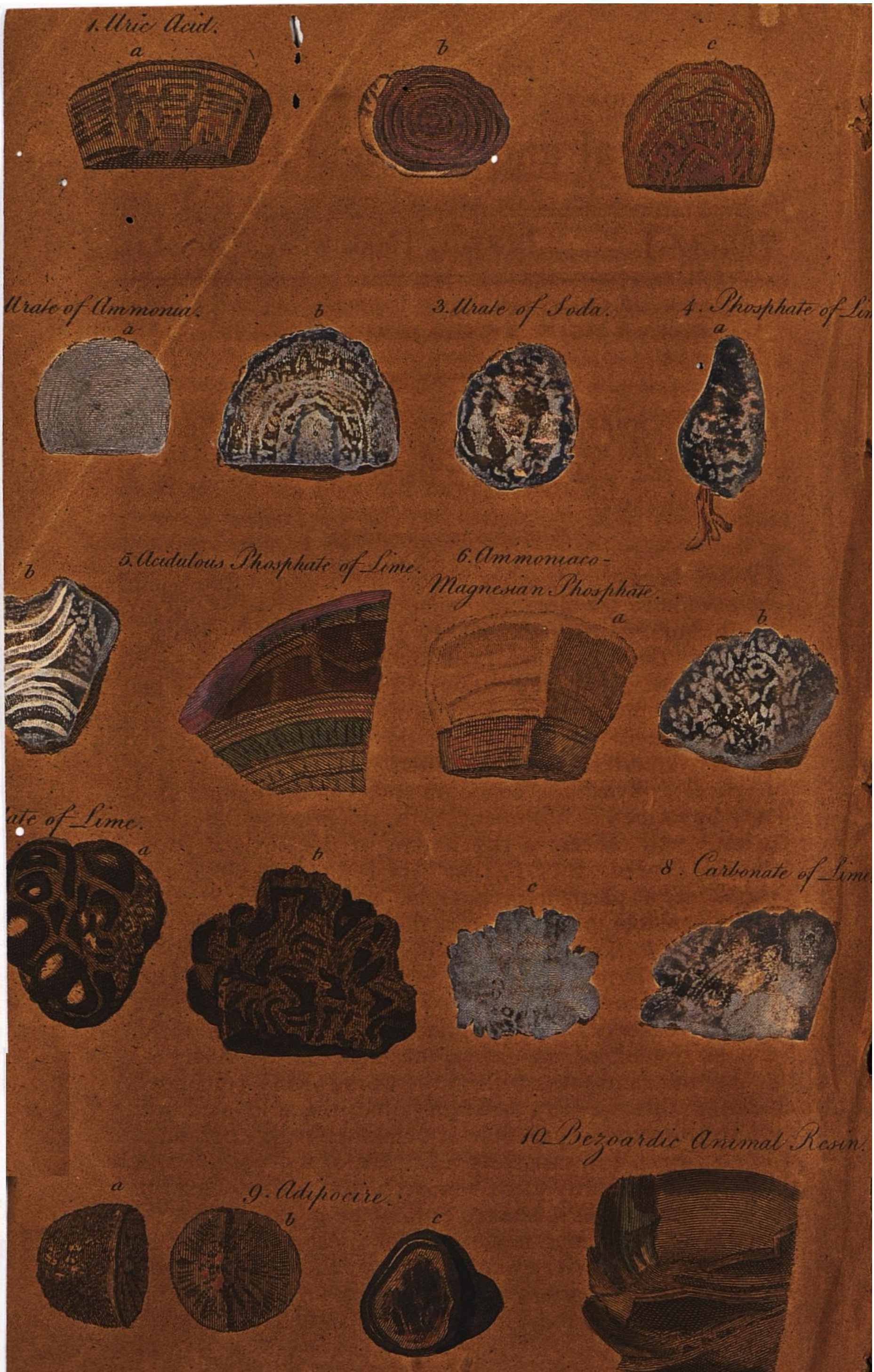
To CORRESPONDENTS.

We have received some very favourable accounts of the success of the *Lichen Islandicus*, in consumptive cases; but the instances where the patients would not submit to regimen, or persevere in the use of the remedy, are more numerous. It is no part of the English character to submit to regimen, or persevere in the use of remedies apparently simple. There are other great obstacles in the way of the cure of Phthisis. Its attacks occur in that period of life when caution and prudence are rare; in that temperament where beauty and vivacity predominate; and the disease itself is generally attended with inordinate hope and good spirits. All these are directly opposed to the care and precautions necessary to the prevention or cure of Consumption.

Our Correspondents will, doubtless, attend to the Hints of Dr. Beddoe (p. 460) in their Communications respecting the Influenza.

Papers are received from Dr. Woodforde, Messrs. Harrup, Ramsay, Weston, O'Berne, Baker, Goodwin, and Wagstaffe; several of them on the Influenza.

The Analysis of Calculi is obliged to be postponed, on account of the difficulty of colouring the Plate accurately. It will be given in the next Number.



Characters of the several Materials which compose Calculi, Bezoars,